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ABSTRACT

A review of the literature suggests significant turnover problems with United States Air Force (USAF) Certified Registered Nurse Anesthetists (CRNAs). The purpose of this research was to describe and determine the relationship between job satisfaction, organizational commitment, and the intent to stay among Air Force CRNAs. A secondary goal was to test Mottaz's (1987) conceptual model of job satisfaction and organizational commmitment and Bluedorn's (1982) unified model of turnover.

A non-experimental, cross-sectional study was conducted to answer the research questions and test the study hypotheses. Data were gathered by questionnaires from 154 active duty Air Force CRNAs. The following hypotheses were tested by the data collected:

Hypothesis 1. There is a positive correlation between job satisfaction and organizational commitment among Air Force CRNAs.

Hypothesis 2. There is a positive correlation between job satisfaction and intent to stay among Air Force nurse anesthetists.

Hypothesis 3. There is a positive correlation between organizational commitment and intent to stay among Air Force CRNAs.

The four most important job satisfaction components to the CRNAs were autonomy, promotional opportunities, pay, and

professional status. Pearson correlations revealed moderate postive correlations between job satisfaction and organizational commitment ($r = .4884$, $p < .05$), supporting hypothesis number one. There was also a weak, positive correlation between job satisfaction and intent to stay ($r = .2141$, $p < .05$), supporting the hypothesis number two. Correlation analysis also revealed a weak, positive correlation between organizational commitment and intent to stay ($r = .3351$, $p < .05$), supporting hypothesis number three.

Analysis of the variance among group means revealed job satisfaction scores were significantly lower among those who planned to separate prior to retirement compared to those who planned to stay to retire. There were also significantly lower organizational commitment scores among those who planned to separate prior to retirement as compared to the two remaining groups, those uncertain about their plans and those who planned to retire.

These data support previous studies suggesting autonomy, pay, and professional status predominate in importance to nurses. Results indicate the importance of further evaluation of sources of satisfaction and dissatisfaction.

JOB SATISFACTION, ORGANIZATIONAL COMMITMENT, AND INTENT TO STAY AMONG UNITED STATES AIR FORCE CERTIFIED REGISTERED NURSE ANESTHETISTS

by

Teresa G. Chaney

A thesis submitted to the
Faculty of the Graduate School of State
University of New York at Buffalo in partial
fulfillment of the requirements for the degree of
Master of Science

February 1991

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This is to certify that Teresa G. Chaney in the Graduate Program, School of Nursing, has successfully completed her research thesis, entitled Job Satisfaction, Organizational Commitment, and Intent to Stay Among United States Air Force Certified Registered Nurse Anesthetists, in partial fulfillment of the requirements for the degree of the Master of Science.

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Chapter I

Introduction

Background and Statement of the Problem

The issue of attraction to and retention of nursing professionals to an organization is a problem in both the military and private sectors of society. The high costs of recruitment and training, the loss of productivity, and the effects on morale of the remaining staff are only a few of the problems associated with high turnover (Price, 1981). Job satisfaction, organizational commitment and an intent to stay with the organization have been identified as being negatively related to turnover (Mobley et al, 1979, Mowday, Steers, and Porter, 1979, Porter and Steers, 1973).

Discussions of organizational commitment in the military literature have focused on professionalism vs. occupationalism. Traditionally, the "Profession of Arms" has been separated and set apart in society--with motivation and organizational commitment maintained not by competitive financial remuneration but by a higher calling of "Duty, Honor, Country".

Military officership and commitment embodies 24-hour availability not just to one's primary duty or specialty,

but to any additional duties or responsibilities that would benefit the organization. Compensation is, in part, an array of social benefits (food, housing, uniforms) based on family status, rank, seniority, need. These social benefits are part of the paternalistic nature of the organization or institution to "take care of its own" (Moskos, 1977; Stahl et al., 1978). Whereas, civilian markets compensate based on fee-for-service, or an individual's professional expertise.

With the increasing "civilianization" of the military, individuals no longer regard military service as a "calling," but instead regard themselves as specialists working for the military (Janowitz, 1960; Moskos, 1977). Military bases in the nineteenth and early twentieth centuries were set apart from the civilian community and culture. Military personnel lived, socialized, and recreated on base, creating a community of their own. After World War II and the Korean War a larger standing military force developed. Military bases and the surrounding civilian community became more closely entwined. With the development of the "Volunteer Army" military service became more and more perceived as "a job on base" as personnel lived and socialized in the civilian community. Health service professionals have been isolated from this analysis. It has been traditionally assumed they are less committed to the military because of extensive professional association with the civilian community.

Organizational commitment is an emotionally laden topic in the military setting. A global conceptualization of commitment as affective (staying because one wants to) or continuance (staying because one needs to) seems limited in view of the complexity of the organization itself. A multi-faceted understanding of the organization along with an understanding of the many commitments of the individual with varying degrees of intensity to different groups within the organization is helpful in defusing a potentially controversial topic (Reichers, 1985).

Air Force (AF) CRNAs are highly specialized and have generally received a military supported education with an associated active duty service commitment as a payback. There is an increasing trend toward separation from the military upon completion of this service commitment. The degree of attrition is cyclic and is believed to be related to job market opportunities. Promotion opportunities are based on advanced degrees in one's specialty and on professional military education. Nurse anesthetists are assigned to the Air Force Nurse Corps and compete with other nurses for promotional opportunities.

The military has special restrictions and limitations regarding promotions, financial reimbursement, and retention strategies. These incentives are mandated and legislated by Congress and not driven (at least in the short term) by market demands. Many specialty salaries in the military are regarded as not competitive with civilian salaries. This

appears to be the case with military nurse anesthetists whose civilian counterparts' salaries continue to grow at a rate well above that in the military. A May 1989 survey of military Certified Registered Nurse Anesthetists (CRNAs) by the American Association of Nurse Anesthetists (AANA) projected a potential loss of over 60 percent of active duty CRNAs in the next two years (AANA, 1989). As over 75 percent of all anesthetics administered in the United States Air Force (USAF) are administered by nurse anesthetists, it is apparent a crisis is looming.

Research Purpose

The purpose of this research was to identify and describe the variables associated with turnover of USAF CRNAs. Specifically, the goal was to evaluate job satisfaction, organizational commitment, and the intent to stay of AF nurse anesthetists. A secondary goal was to test Mottaz's conceptual model of job satisfaction and organizational commitment and Bluedorn's unified model of turnover (Mottaz, 1987; Bluedorn, 1982).

Research Questions and Hypotheses

The research questions addressed were:

1. What are the sources of job dissatisfaction and satisfaction among AF nurse anesthetists?

2. What is the correlation between job satisfaction and organizational commitment among AF nurse anesthetists?

3. What is the correlation of job satisfaction with intent to stay?

4. What is the correlation of organizational commitment with intent to stay?

There are several major theories of job satisfaction and models of turnover. The discrepancy or needs fulfillment theories of satisfaction propose that work or job satisfaction is an affective or emotional response resulting from an evaluation of the work situation (Mottaz, 1987). This affective response is based on a multidimensional appraisal of work-related factors or rewards as compared to a personal standard or valuation of these components (Locke, 1969, Maslow, 1954, Vrom, 1964, Mottaz, 1987).

Organizational commitment is conceived as a "global" affective or attitudinal response to the organization (Porter et al, 1974). Commitment is considered to be stable, developed over time, and future oriented (Porter et al, 1974, Mowday, 1982). Job satisfaction, organizational commitment and an intent to stay with the organization have been identified as being negatively related to turnover (Mobley et al, 1979, Mowday, Steers, and Porter, 1979, Porter and Steers, 1973). Turnover models propose a series of cascading interactions of values and expectations,

progressing through employee withdrawal to turnover (Mobley, 1977; Bluedorn, 1982).

Mottaz's conceptual model (1987) of job satisfaction and commitment with Bluedorn's adapted model of turnover (1982) were selected and used as guides in this study. The following hypotheses based on Mottaz's conceptual model were tested by the data collected.

Hypothesis 1: There is a positive correlation between job satisfaction and organizational commitment among AF CRNAs.

Hypothesis 2: There is a positive correlation between job satisfaction and intent to stay statements among AF nurse anesthetists.

Hypothesis 3: There is a positive correlation between organizational commitment and intent to stay statements among AF CRNAs.

Definition of Terms

Job satisfaction was defined in the context of this study as the overall attitudinal, emotional response of workers to their work (Price, 1981; Mottaz,1987). Components of satisfaction measured in this index include pay, autonomy, task requirements, organizational policies, interaction, and professional status. The definition of these components follow:

Pay is the dollar remuneration and fringe benefits received for work done.

Autonomy is the amount of job-related independence, initiative, and freedom, either permitted or required in daily work activities.

Task requirements are tasks or activities that must be done as a regular part of the job.

Organizational policies are management policies and procedures put forward by the organization.

Interaction refers to the opportunities presented for both formal and informal social and professional contact during working hours.

Professional status is the overall importance or significance felt about one's job, both in one's own view and in the view of others.

Promotional opportunities refers to the opportunities to rise to a higher rank or position in the organization.

Voluntary turnover is the avoidable separation of an individual from an organization (Price, 1981).

An intent to stay is the expressed intention of an individual to remain with an organization. Statements of intention are used to measure potential turnover directly rather than indirectly through an assessment of job satisfaction (Price, 1981; Kosmoski and Calkin, 1986). Statements of intention are differentiated from organizational commitment in that these intentions are

considered an intermediate link between low organizational commitment and turnover. Intent to stay was operationalized with a single item statement with Likert-type responses adapted from the Organizational Commitment Scale (Mowday, Steers, and Porter, 1979).

Organizational commitment in this study was defined as "the relative strength of an individual's identification with and involvement in, a particular organization. It can be characterized by at least three related factors: (1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization" (Porter et al., 1974, p. 604). The concept was measured by a short version of the Organizational Commitment Questionnaire developed by Mowday, Steers, and Porter (1979).

Assumptions

1. Attitudes regarding job satisfaction, organizational commitment and decisions to stay with an organization are rational. They are also congruent with previously held values and beliefs regarding work and commitment.

2. Intentions are the precursors of behavior. So the intention to stay with an organization is the antecedent of the overt behavior.

3. Respondents will accurately report their attitudes and intentions.

Preview of Methodology

A non-experimental, cross-sectional study was conducted using a survey mailed to all active duty Air Force nurse anesthetists at their facility and returned to the investigator by the recipient in a pre-addressed, stamped envelope. The sampling frame was USAF CRNAs with updated organizational addresses. A total of 154 (74%) individuals returned the survey comprised the final sample.

The survey was composed of a five-part questionnaire with closed and open-ended questions measuring various individual and organizational characteristics. Job satisfaction, organizational commitment, and intent to stay were also measured.

Descriptive statistics were used to describe the characteristics of the sample. Pearson Product Moment Correlation analysis was used to study the relationship between the variables intent to stay, job satisfaction and organizational commitment.

Scope and Limitations

A limitation of close-ended questionnaire surveys is

the lack of depth and perhaps inappropriateness of the predetermined responses. This was minimized by including open-ended questions for the subjects' further responses. Another weakness is the potential for inaccurate reporting of attitudes as some individuals may have believed an exaggerated response of dissatisfaction and intentions to leave the military would improve the Air Force Nurse Corps response to survey results. Further, there may be inherent selection bias in that only those with very strongly held opinions may respond.

The specific sample -- a nursing specialty in a military setting -- limits generalization either to nursing or to the military. Guarded generalization may be made about active duty CRNAs in another military branch.

Significance of Study

Despite limitations, this study has significance for nursing. In this time of nursing shortage and a declining interest in nursing as a career, studies focusing on intent to stay and the associated variable organizational commitment can provide data for management analysis in the problem of turnover. Analysis of job satisfaction data can provide insight into possible areas for job reorganization. Significant changes in nursing organization as a functional unit of the health care delivery team must be made in order to interest people in nursing as a career.

This study of USAF CRNAs' job satisfaction, organizational commitment, and intent to stay has generated and provided a data base the AF Nurse Corps can use to analyze the problem of turnover and devise rentention strategies.

Chapter II

Theoretical Framework and Review of Literature

Perspectives on Job Satisfaction

Studies of job satisfaction were initially linked to productivity and motivation. It was only later that job satisfaction was studied in relation to turnover and employee withdrawal.

Herzberg's Two Factor theory proposed that certain factors in the work situation were satisfiers or motivators (1966). These included factors associated with the work itself such as status, responsibilty, and advancement. Other factors were identified as dissatisfiers or hygienes. These included organizational policies, interactions, supervision, pay, and working conditions. Herzberg suggested that if the satisfiers are removed, indifference, not dissatisfaction results. He proposed that dissatisfaction occurs only when the factors identified as dissatifiers or hygienes are percieved negatively.

Locke (1969) points out that Herzberg implies certain factors cannot cause satisfaction or dissatisfaction at all. In fact, Locke notes that Herzberg suggests a "motivator" is valued and provides satisfaction, but if that "motivator" is not obtained it ceases to have value, producing indifference and not dissatisfaction.

Most literature reviews rate this theory as controversial at best. Still being referred to as a classic satisfaction theory, Herzberg's Two Factor theory (1966) continues to receive mention in the nursing literature and occasionally is used as a theoretical framework (Stamps and Piedmonte, 1986). Results were not supportive when serious consideration and testing of this theory was last done in the late 1960's (Tuttle, 1974).

The discrepancy or needs fulfillment theories of satisfaction propose that work or job satisfaction is an affective or emotional response resulting from an evaluation of the work situation. This affective response is based on a multidimensional appraisal of work-related factors or rewards as compared to a personal standard or valuation of these components (Locke, 1969; Maslow, 1954; Vroom, 1964; Mottaz, 1987).

Job satisfaction has also been conceptualized as met expectations meaning that as a person's expectations are met, he becomes satisfied. If the individual's expectations are not met, he experiences dissatisfaction (Porter and Steers, 1973).

Locke (1969) persuasively argues that when an individual's expectations are not met he feels <u>suprise</u>. He may be pleasantly suprised or unpleasantly suprised. Satisfaction is achieved when one obtains or secures what one <u>values</u> not what one expects.

Perspectives on Organizational Commitment

Beginning in the mid and late 1970's, the turnover literature became focused on organizational commitment. Organizational commitment has been defined by Porter et al. (1974) as the relative strength of an individual's identification with and involvement in a particular organization. It is differentiated from job satisfaction in that job satisfaction/work attitudes are associated with a specific work environment and these attitudes or responses may be quickly formed and may be transitory in nature. Alternatively, organizational commitment is both attitudinal and behavioral, tends to be more stable, and takes longer to form or solidify (Porter et al., 1974; Mowday et al., 1979). Once organizational commitment has had the time to form, studies indicate it consistently demonstrates a strong negative relationship with turnover (Porter et al., 1974; Peters et al., 1981; Cotton and Tuttle, 1986).

Organizational commitment has been further defined as affective and continuance commitment (Meyer and Allen, 1984). Affective commitment is an emotional identification with the organization and a desire to maintain membership to pursue its goals. Members remain with an organization because they want to.

With continuance commitment, the individual is bound to the organization by external factors. McGee and Ford (1987) differentiated these external factors into limited alternatives (for employment elsewhere) and high personal sacrifice for leaving (loss of tenure, security, pension). Members, in this case, feel they need to remain with the organization because of investments or "side-bets" (Becker, 1964). Not surprisingly, there are indications that the nature of the commitment affects job performance, absenteeism, and productivity (Meyer et al., 1989).

In most discussions of organizational commitment, the organization is conceived as a single entity and commitment to it as global in nature. However, organizations are multi-faceted, with multiple groups, goals, and values. Job satisfaction can also be conceived of and assessed globally or broken into various factors contributing to it. Thus, members can have multiple commitments to various groups and goals within the organization (Reichers, 1985). These multiple commitments create the potential for varying degrees of commitment and conflict.

Perspective on Turnover

In the late 1960's and early 1970's job satisfaction began to be studied in relation to turnover and employee withdrawal. Turnover or voluntary separation from an organization has been measured directly through longitudinal

studies (Price, 1981; Porter et al., 1974; Weisman et al., 1980). Indirect measures such as intent to stay or leave appear to be stronger predictors than job satisfaction alone of actual departure from the organization (Bluedorn, 1982; Dalessio et al., 1986; Cotton and Tuttle, 1986; Kraut, 1975). Also, there is some evidence that the strength of intent to leave statements may decay as the time period between the statement and the actual time of anticipated departure lengthens (Steel and Orvalle, 1984). Nonetheless, measurement of intent statements remain highly predictive and valuable tools for assessment of turnover.

The costs of turnover are estimated to be at least three times the monthly salary of the individual. Financial cost aside there are the effects of turnover on the work unit, including the loss of cohesion and morale. However, there has been little formal study on the consequences of turnover (Mueller and Price, 1989).

Models of the antecedents of turnover have been more intensely researched than the consequences. Porter and Steers (1973) reviewed over 60 studies from 1955-1972 which assessed withdrawal from an organization by measuring avoidable turnover and absenteeism. Job satisfaction consistently correlated with decreased turnover.

Porter and Steers developed an early model of turnover from this meta-analysis. In this model, each individual is viewed as coming to a work situation with expectations and a valuation of the importance of these expectations. If these

expectations are met the individual feels it is worthwhile to remain with the organization. If they are not met, the individual is dissatisfied and withdraws from the organization (Porter and Steers, 1973).

Mobley (1977) introduced intermediate linkages in the relationship between job satisfaction and turnover. These include thinking of quitting, evaluating job opportunities, and the intention to quit. The intention to quit is perceived as the precursor to the actual behavior of quitting. Intentions to quit are also an assessment of the individual's evaluation of his options (Mobley, 1977). Mobley's intermediate linkages are displayed in Figure 1.

Unified Theoretical Frameworks

Mottaz (1987) has conceptualized work satisfaction as a congruent relationship between work rewards and work values. When the rewards are matched with the employee's values, there is work satisfaction. The strength of a particular reward (such as pay) in predicting satisfaction is dependent on the ranking or value the individual places upon that reward. This conceptualization or model can explain the widely divergent ranking of the variables (rewards) of job satisfaction in the literature.

In the same vein, when an individual enters an organization he comes with expectations concerning the rewards that are appropriate to his values. When the

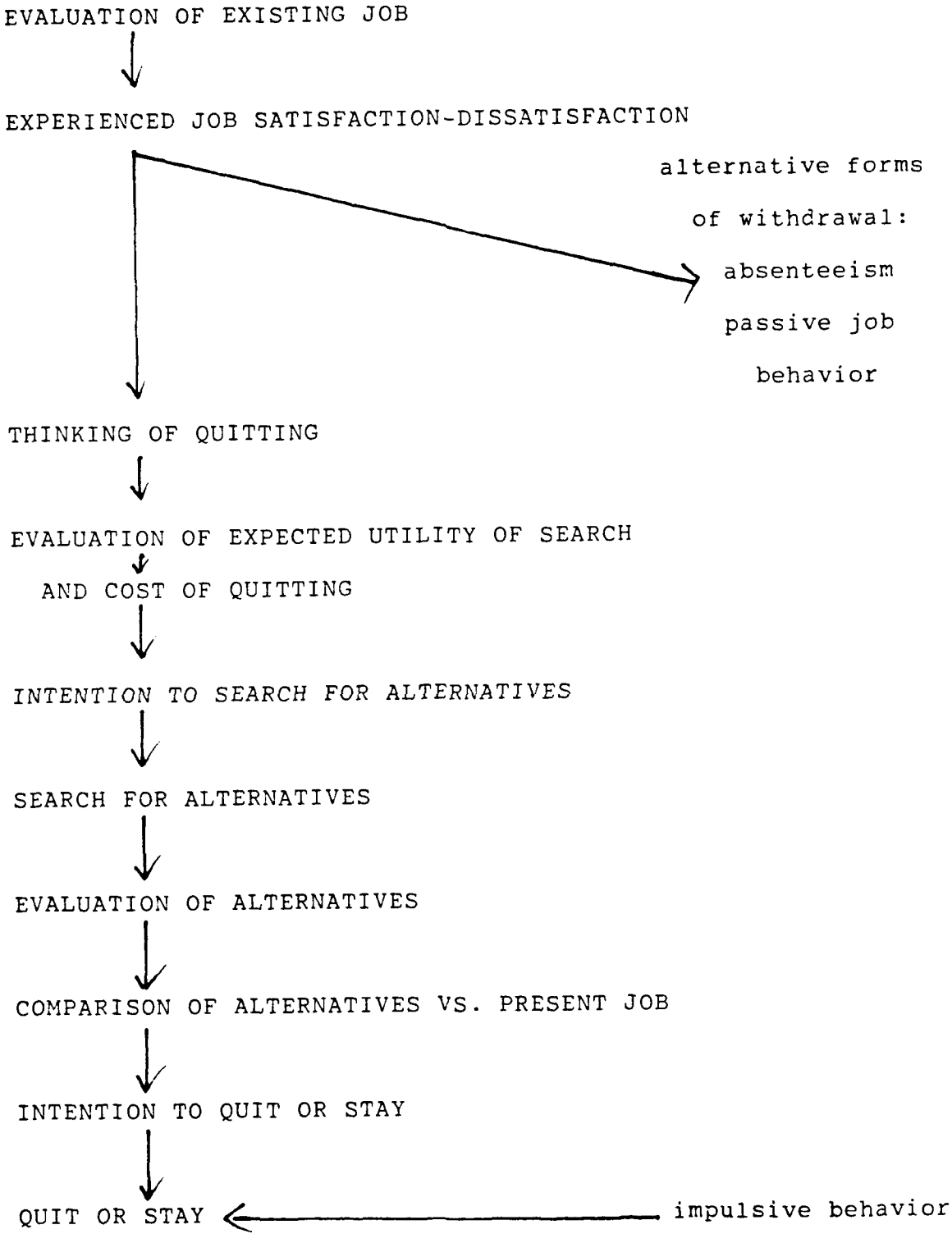

Figure 1: The employee turnover decision process.

(Mobley, 1977)

organization meets these expectations and facilitates his goals in exchange for the employee offering his work and skills, there is organizational commitment. If the organization fails to meet the desired values and goals, there is decreased commitment to the organization. Thus, values are also conceptualized as having impact on organizational commitment (Mottaz, 1987).

Bluedorn presented a unified model of turnover incorporating satisfaction, organizational commitment, and Mobley's intermediate linkages (1982). Bluedorn's analysis suggested that the job search variable (searching for alternatives) in Mobley's model is not related to either job satisfaction or organizational commitment. Bluedorn proposes that the job search variable is related to the individual's perception of past and present job opportunities associated with the individual's current organization. A simplified version of Bluedorn's model using the components of this research study is presented in Figure 2.

These unified models of satisfaction, commitment, and turnover by Mottaz and Bluedorn were used as a guide in this study. They were chosen because of their clarity and global nature--tieing together multiple concepts from a confusing array of studies and proposed theories.

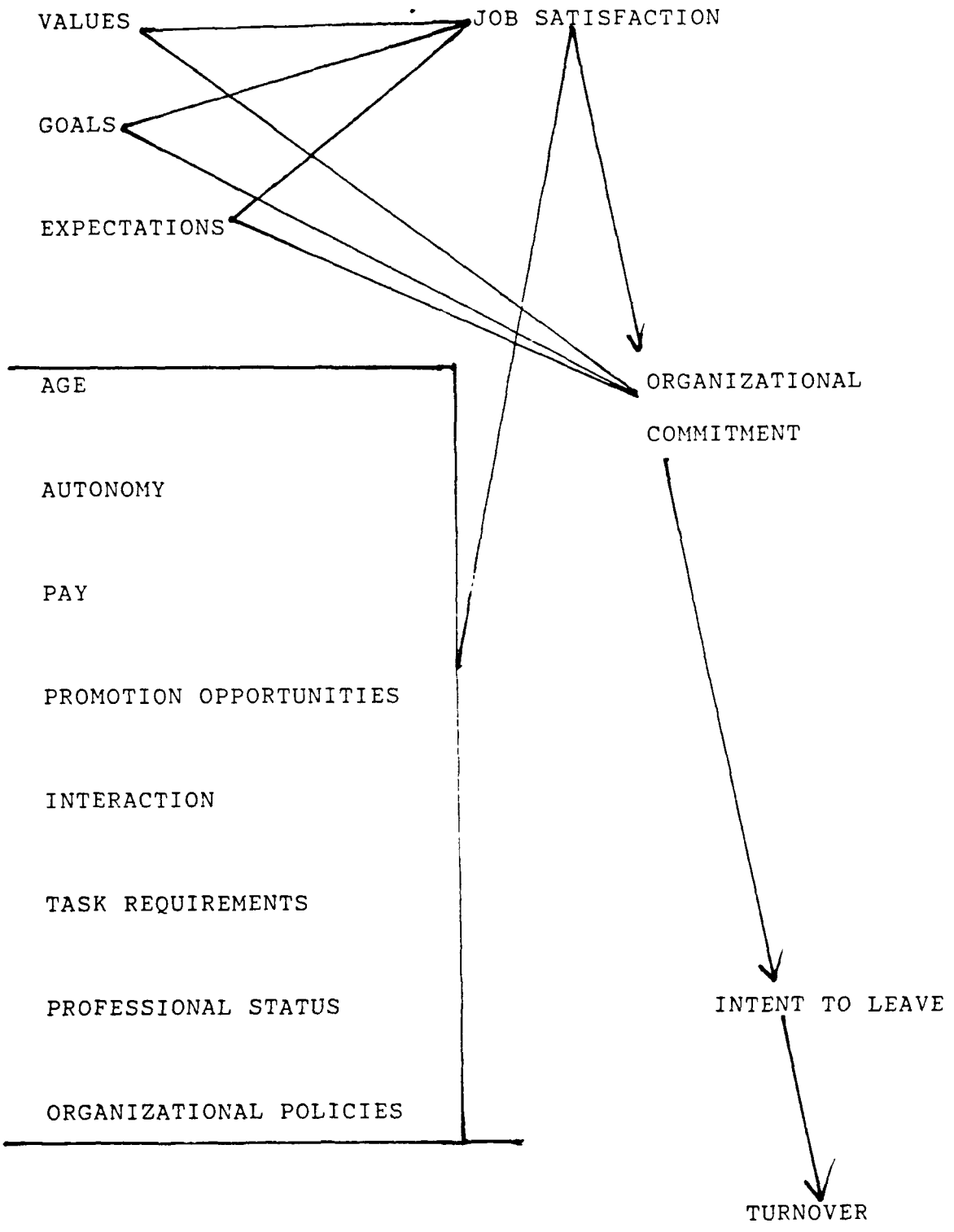

Figure 2: Adapted model of turnover.

(Bluedorn, 1982)

Review of Literature

The literature on job satisfaction, organizational commitment, and employee turnover is voluminous and contradictory in some respects. There is, however, general consensus that job satisfaction is a reliable and consistent predictor of both employee organizational commitment and turnover (Cotton and Tuttle, 1986; Mottaz, 1987; Kraut, 1975; Welsch and LaVan, 1981). Multiple variables have been related to satisfaction and a variety of tools have been used to assess these variables among divergent populations, with at times, inconsistent results (Cotton and Tuttle, 1986).

Stamps and Piedmonte (1986) developed a scale to measure work satisfaction that has been administered to physicans, nurses, and other direct care health professionals. The process of instrument development encompassed ten years and included revision of scale items and the scoring procedures. A comparative analysis was done using research data made available from investigators who had requested permission to use the instrument. A major problem in developing normative values for the scale was the variability in the use of the instrument. Many investigators used only parts of the instrument, made changes in the scale making it more applicable to their setting, altered possible responses, or changed the components measured.

Six components of job satisfaction--autonomy, interaction with nurses and physicans, organizational policies, professional status, pay, and task requirements were identified from literature reviews and personal communications with health care managers as important to job satisfaction.

The instrument consists of two parts. Part A measures how important each of the six components is to the individual, while Part B assesses satisfaction with each component. Thus work satisfaction can be indexed or weighted by the importance or valuation an individual places upon each component.

Locke (1969) argues that individuals weight satisfaction of components or factors themselves. For example, when an individual values something highly, he feels satisfaction or dissatisfaction more strongly. When an issue is less important or less highly valued, he responds less extremely. Confirming this, Stamps and Piedmont's (1986) comparison of weighted and unweighted scores consistently produced a Kendall's Tau of .86 or .87, indicating no theoretical difference between weighted and unweighted scores.

Regardless, valuation or the ranking of components remains important for management assessment and reorganization of the work setting. In Stamps and Piedmonte's review of studies using their instrument, they found autonomy consistently ranked highest in importance

among nurses. Pay and professional status competed for the number two and three rankings. Stamps and Piedmonte (1986) make the important point of noting that far too many studies consider nurses with widely different work responsibilities as exchangeable, disregarding the considerable variations in training and responsibilities of the nursing profession.

Job Satisfaction Among CRNAs

There are two published studies available concerning work satisfaction among CRNAs. Thompson (1981) surveyed 491 CRNAs in southwestern Pennsylvania achieving a 60% response rate. The purpose of the study was to determine the relative importance of six job factors to nurse anesthetists, general levels of job satisfaction, and which specific factors correlated with low levels of satisfaction. The questionnaire was designed using that of Stamps and collegues (1978) as a model. The questionnaire had three sections: demographics, ranking of work factors by pairs, and a Likert-type series of attitude statements relating to each job factor.

Six factors pertinent to work satisfaction were studied in both ranking and Likert-type attitude statements: anesthesiologist support, autonomy, interactions, pay, the work itself, and working conditions. The rank order of the six factors from most important to least important was: 1) pay, 2) working conditions, 3) autonomy, 4) anesthesiologist

support, 5) the work itself, and 6) interactions. Thirty-seven percent of the respondents were satisfied with their pay and 79% expressed satisfaction with anesthesiologist support, while 86% were satisfied with autonomy. Ninety percent of the CRNAs responding were satisfied with interactions and 97% were satisfied with working conditions. One hundred percent of the CRNAs expressed satisfaction with the work itself. No one factor correlated significantly with overall job satisfaction or dissatisfaction, but Thompson found that satisfaction tends to increase with the number of years in the profession as an anesthetist. Also, anesthetists employed by anesthesia groups were less satisfied than those otherwise employed.

Brown, Chase, and Freeborn studied the satisfaction of CRNAs in maternity services (1987). A random sample survey was sent to CRNAs practicing in Oregon and Washington with a 79% response (N=161). The objectives of the study were to 1) identify roles and tasks of CRNAs working in the maternity area, 2) determine the relationship between time spent in maternity care and CRNA work satisfaction, and 3) to ascertain the relationship between CRNAs' views of the consumer in maternity care and their work satisfaction.

The first half of the questionnaire contained demographic questions and items on the dimensions of work and career satisfaction. This component was completed by all study subjects. The second half of the survey was

exclusive to CRNAs who worked in the maternity area. Items were specifically related to their anesthesia experiences in maternity care.

Among CRNAs who had involvement in regional anesthesia administration, 77% indicted that their job satisfaction would decline if regional anesthesia was administered exclusively by physicans. The three most important predictors of overall job satisfaction among CRNAs who worked in maternity areas were preceptions of status, views toward consumers, and the degree of consultations in maternity care. CRNAs who felt there was no difference in status or prestige between obstetrics and other practice areas were more satisfied than those who perceived a difference. CRNAs who accepted consumer preferences and felt positive toward consumers were more satisfied than those who viewed consumer requests less favorably. Also, those CRNAs who felt consultations were adequate between maternity team members were more satisfied than those who believed team consultations needed to increase. Given a choice, 50% of the entire sample of CRNAs indicated they would not choose a job that included an obstetrical component in their practice. Age was negatively correlated with overall job satisfaction and males tended to be more satisfied than females.

The American Association of Nurse Anesthetists (AANA) conducted a survey in May of 1989 of selected chief nurse

anesthetists (112) in the United States military. This study had a 79% response rate. The purpose of the research was to provide data to support legislative initiatives to improve the career incentives of military CRNAs.

The survey asked the chief-CRNAs about the career intentions of the CRNAs responsible to them and organizational policies regarding practice and promotion opportunities. The AANA findings and conclusions were listed in an Executive Summary as follows:

1) CRNA shortages on active duty in the military services are significantly greater than anesthesiologists.

2) There is a potential loss of over 60% of CRNAs on active duty over the next two years.

3) The practice environment has deteriorated significantly with pay and promotion assuming an even greater importance as career incentives.

a. CRNAS perform a significantly greater proportion of anesthesia than their number would suggest.

b. Frequent evaluations of CRNAs by anesthesiologists are becoming a frequent irritant to CRNAs.

c. There appears to be an unwarranted proliferation of restriction on CRNA practice related to children under two years and adults categorized as American Society of Anesthesiologists (ASA) classifications III and above.

4) Most CRNAs cited that the current promotion potential, or lack thereof, is a major disencentive to remaining in the service.

5) The significant disparity in pay between military and civilian CRNAs has become a major disencentive to remaining within the military service.

Data from the AANA survey indicated that the Air Force had a 17.9% shortage of nurse anesthetists and a 5.2% shortage of anesthesiologists (MDAs). According the chief nurse anesthetists at the facilities surveyed, 21.0% of the CRNAs responsible to them planned to separate from the military in the next 12 months. An additional 45.2% of the Air Force CRNAs were seriously considering leaving the military in the next two years.

Projecting these data to all active duty Air Force CRNAs would mean that 50 of 240 CRNAs would be leaving by June, 1990 and that an additional 108 would be seriously considering leaving by June, 1991. These numbers predict that 190 CRNAs would be on active duty by June, 1990. A June 26, 1990 mailing from the Military Personnel Center (MPC), Randall Air Force Base (AFB), Texas includes a list of 214 active duty Air Force CRNAs. This suggests either aggressive acquisition of CRNAs via education and recruitment or less dire attrition of military CRNAs than projected by the AANA. Some combination of the two is most likely.

An unpublished Master's project by an Air Force nurse anesthetist (Martino, 1990) reported results of a survey of former Air Force CRNAs who voluntarily separated from the

military prior to retirement from 1982 through 1988. The purpose of the study was to identify the major issues associated with the decisions of active duty CRNAs in the USAF to separate from the military prior to retirement. The social reference group theory was used as the theoretical framework for understanding the decisions of Air Force CRNAs relative to separation. Martino suggested that three groups (military anesthesiologists, military staff nurses, and civilian CRNAs) are used as the social references to which Air Force CRNAs compare themselves within their work situation.

The survey was composed of four parts. The first part consisted of demographic questions. The second section required respondents to make 15 paired comparison choices concerning which of the six factors of work satisfaction identified by Stamps and Peidmonte (1986) were the most important to their personal satisfaction with work. The third section requested information concerning reasons for leaving the military and the last section asked for recommendations for change in an open-ended format.

Of the 58 respondents, 35% (20) ranked the people and friends they worked with as the most positive experience as an Air Force CRNA. Miltary anesthesia training and autonomous practice were each ranked as the most positive experience by 16% (9) of the respondents. The respondents ranked Stamps and Piedmonte's (1986) six components of work satisfaction as follows: 1) pay, 2) autonomy, 3)

professional status, 4) task requirements, 5) interaction, and 6) organizational policies.

The reason most frequently given for separating from the military before retirement was low pay. Ninety percent of the respondents indicated low pay as a reason, with 36% identifing it as the most important reason. Of the nine CRNAs who reported they were less satisfied with their present jobs than with the Air Force, six were not allowed to provide regional anesthesia as part of their practice. This finding supports that of Brown et al (1987), who found that providing regional anesthesia was related to the work satisfaction of CRNAs in their study.

Recommendations for changes in the Air Force were primarily related to pay and promotion potential. Eighty-three percent of the respondents recommended a professional staff bonus similar to that provided to anesthesiologists. Eighty-one percent of the sample recommended that CRNAs be payed at a different rate from general duty nurses. Changing promotion policies so that CRNAs would be promoted on a fully qualified basis as are physicans was recommended by 57 percent of the sample.

Other recommendations included 38% of the sample suggesting that CRNA tasks should be restricted to anesthesia related duties and 19% of the respondents encouraging standardization of departmental policies in the Air Force. In the areas of professional status in interactions, 36% of the sample suggested CRNAs should be

afforded the professional status of autonomous providers and 26% recommended that CRNAs be placed under Professional Services instead of Nursing in the military organization.

Martino recommended a replication of his research among active duty Air Force CRNAs. He further suggested that personal interviews by non-threatening CRNAs might identify more issues related to retention of CRNAs.

Summary

The literature and studies reviewed clearly indicate the variables of job satisfaction, organizational commitment and intent to stay are negatively related to turnover. The strength of observed correlations varies with the population demographics and is dependent on the measurement validity and reliability of the instrument utilized. In light of the limited studies available measuring satisfaction in CRNAs in general, and military anesthetists in particular, this study has attempted to fill a void in the understanding of Air Force CRNAs' satisfaction, commitment, and career intentions.

The specific intentions of this research were to identify, describe and evaluate job satisfaction, organizational commitment, and the intent to stay of AF nurse anesthetists. The purpose of studying variables related to turnover and analyzing job satisfaction data was

to provide insight into possible areas for job reorganization. Chapter III describes the methods and procedures used to implement this research.

Chapter III

Methodology

The purpose of this study was to describe and determine the correlation of the variables of job satisfaction, organizational commitment, and career intentions with turnover of Air Force nurse anesthetists. A secondary purpose of the research was to evaluate Mottaz's (1987) conceptual model of job satisfaction and organizational commitment in the military setting with CRNAs. A non-experimental, cross-sectional survey was conducted to answer the research questions and test the study hypotheses. The methodology employed is described in this chapter.

Sample

The sample was composed of 154 Air Force nurse anesthetists stationed overseas and in the continental United States. The sampling frame comprised a list of the names and addresses of all 216 active duty USAF CRNAs. The list was obtained from the Military Personnel Center, Randolph Air Force Base, Texas. Of the 216 questionnaires originally mailed, two were returned with messages indicating that individual had separated from the Air Force, seven were returned with messages stating the individual had

been transferred and was no longer at that address, and three were returned blank with a remark that the individuals involved did not desire to participate. Of the 207 (two CRNAs had separated and seven had been transferred) possible responses from surveys mailed to active duty USAF CRNAs, 154 (74%) voluntarily agreed to participate.

The response rate, while acceptable, was probably limited somewhat by the fact that data collection took place during the summer. The summer is traditionally the time period of transferring from facility to facility and separating from the service, should the new assignment be refused. Also, military deployment to the Persian Gulf occurred during this period.

Instrumentation

As mentioned, data were gathered by mailed questionnaires (Appendix A). The instrument consisted of five parts. Section I included demographic items and questions about the respondents' career plans and work situations. A total of 40 questions were included in this section of the questionnaire. The items were derived from a review of the literature, which suggested them as pertinent. Three questions had been planned to assess career intentions but further evaluation revealed scoring difficulties and these questions were not used to measure intent. Additions and modifications of this section were made in response to

evaluation by a panel of experts. The format of the items included close-and open-ended questions and questions requiring fill-in responses. The open-ended questions asked the respondents to indicate the most positive and the most negative aspects of their experiences as a CRNA in the Air Force. These data were used to answer research question number one: What are the sources of job dissatisfaction and satisfaction among AF nurse anesthetists?

Items relative to job satisfaction were included in sections II and III. The items included in each section were adapted from the Work Satisfaction Index developed by Stamps and Piedmonte (1986). Stamps and Piedmonte identified six components of satisfaction: autonomy, pay, interaction, organizational policies, task requirements, and professional status. Promotional opportunty was added to the Work Satisfaction Index by the investigator, as the literature suggested this was an important component to CRNAs in the military setting (AANA, 1989; Martino, 1990).

The original Stamps and Piedmonte tool consisted of two parts. Part A measured the relative importance of each of the six components to the individual. Relative importance was assessed by use of paired comparisons where all the possible combinations of pairs of the components were listed and the respondents were requested to indicate which factor in each pair (example: Pay or Organizational Policies, Promotional Opportunities or Professional Status) was more important to them. Frequency distributions were used to generate individual and group rankings of the components.

Part B of the Work Satisfaction Index as developed by Stamps and Piedmonte (1986) included 44 items (Appendix B). This section was comprised of a series of statements concerning satisfaction with each of the identified components. The interaction component in this section was divided into statements addressing nurse-to-nurse interaction and nurse-to-physician interaction. Each statement had a 7-point Likert-type response ranging from 1) very strongly disagree to 7) very strongly agree. Stamps and Piedmont evaluated satisfaction by comparing means, quartiles, and indexing or weighting the responses to Part B by the ranking given in Part A.

During the development of their instrument, Stamps and Piedmonte attempted to establish satisfaction "norms" by evaluating responses from the multiple studies which were using the instrument. However, it was difficult to compare study results with one another as many of the different investigators altered and adapted the instrument to their own particular setting. Internal reliability of the final instrument by Stamps and Piedmonte (1986) was assessed by Chronbach's alpha at 0.82. Kendall's Tau was used to measure the strength of the correlation between the weighted score and the unweighted score. For the final instrument, Kendall's Tau reached 0.92 (Stamps and Piedmonte, 1986). Permission was obtained to use this material from the publisher and author (Appendix C).

Section II contained Part A of the information relative

to job satisfaction described above. Part A was composed of 21 pairs of job satisfaction components to be ranked in importance, indicating the value of each component to the individual. As previously mentioned, the only alteration of the Stamps-Piedmonte instrument in this section was the addition of the promotional opportunities component. Scoring procedures for this section were based on three-step calculations based on Thurstone's Law of Comparative Judgements, as described by Stamps and Piedmonte (1986).

Section III contained Part B of the items pertaining to job satisfaction adapted from Stamps and Piedmonte's Work Satisfaction Index. These items comprised a series of 16 statements with 5-point Likert-type responses dealing with the previously identified satisfaction components and the additional component relative to promotional opportunities. Possible responses ranged from strongly disagree (score = 1) to strongly agree (score = 5). Six items were negatively worded and reverse scored so that high scores reflected high satisfaction. For ease of interpretation, scores of this scale and all scales in the study were summed and converted to percentiles with possible responses ranging from zero to 100. Missing data were deleted from analyses.

The Stamps-Piedmonte instrument was modified to limit the size of the instrument and changes in wording were made to make statements more applicable to the specialty (nurse anesthesia) and the setting (the USAF). The items were selected for inclusion in the instrument for this research

from Stamps-Piedmonte based on the appropriateness for the CRNA specialty and the military setting. Reliablility of the Job Satisfaction Scale in the instrument for this research was assessed with a Cronbach's alpha of 0.64.

Section IV of the instrument for this research was comprised of nine statements, with one statement focused on retirement intentions and eight statements addressing organizational commitment. These nine statements had 5-point Likert-type responses ranging from strongly disagree (score = 1) to strongly agree (score = 5). One item was indicative of intent to stay and was used exclusively to determine career intentions of the respondents.

The eight statements in Section IV relative to Organizational Commitment were taken from the 15-item Organizational Commitment Scale developed by Mowday et al (1979, see Appendix D). These items included in the instrument for this research were selected based on their appropriateness to the specialty and the military setting. The complete instrument developed by Mowday et al (1979) had documented Cronbach's alphas ranging from 0.82 to 0.93. Convergent validities ranged from 0.63 to 0.74 in comparisons of six studies using the Organizational Attachment questionnaire (Mowday et al, 1979).

As discussed previously, the scores were summed and converted to percentiles with a possible response of zero to 100 so that an increased score on the Organizational Commitment Scale represented increased organizational

commitment. Reliablility of the Organizational Commitment Scale in the instrument for this research was assessed with a Cronbach's alpha of 0.77.

Section V was designed using open-ended responses to solicit attitudes and recommendations of Air Force CRNAs concerning the identified components of work satisfaction. Each component was listed with space provided for remarks. An additional area, labeled "Other", was provided for additional remarks not covered by the specified components.

When the development of the questionnaire was completed, it was subsequently revised after evaluation by reserve and active duty (United States Army and United States Air Force) CRNAs among the faculty and students at the State University of New York at Buffalo. The questionnaire was further reviewed by the USAF Military Personnel Center without suggested revision. As required, survey and questionnaire approval was also sought and obtained from the Air Force. A Survey Control Number 90-57 was assigned with an expiration date of December 31, 1990 (Appendix E). The AANA Education and Research Foundation reviewed the questionnaire and suggested adding one question "Have you cared for an AIDS patient?". However, this was not added as it was not relevant to the study and the study was already in process at the time of the suggestion.

Research Procedures

The study was reviewed and approved by the Human Subjects Review Committee of the School of Nursing at the State University of New York at Buffalo (Appendix F) prior to implementation. The data collection began August 4, 1990 and ended after eight weeks on October 9, 1990.

Questionnaires were mailed to active duty Air Force nurse anesthetists at their medical facilities. The initial mailing included the questionnaire, a pre-addressed, stamped return envelope and an individually addressed letter to each CRNA. This letter indicated the purpose and significance of the study, identified the investigator, assured the recipients about the confidentiality of data, and informed potential subjects that participation was entirely voluntary (Appendix G). Also, potential subjects were informed about their right to withdraw from the study after returning the questionnaire if they so desired by contacting the investigator. The letter stated that participation would take about 20 minutes and would have no effect on their position in the Air Force. The respondents were directed to write their names and addresses on the back of the return envelope if results of the study were desired.

Following Dilman's Total Design Method protocol (1978), one week after the original mailing an individually addressed follow-up letter was mailed to all CRNAs to thank those who responded and to encourage responses from those

who had not yet returned the questionnaire (Appendix H). The investigator's phone number was included in the event the original letter and survey were either not received or had been discarded by the individuals who wished to respond.

Four weeks after the orginal mailing an additional, third letter reiterating the purpose and significance of the study was sent to those who had not returned the questionnaire (Appendix I). A replacement questionnaire was enclosed, along with a pre-addressed, stamped return envelope.

Dilman's Total Design Method (Dilman, 1978) advocates that the third mailing take place three weeks after the original mailing and not four, as was done in this study. The time frame was extended for this study in order to allow time for return mailing from Europe and the Pacific Rim. This one week delay proved worthwhile. Numerous responses were received during that week, eliminating unnecessary duplication of effort and postage expenses. Dilman also proposes a fourth mailing, via registered mail. A fourth mailing was not done in this study because of time and financial constraints. Dilman's (1978) protocol for mail and telephone surveys, if consistently followed, has yielded response rates at or greater than 75 percent. The response rate for this study (74%) compares favorably with that of Dilman.

Analysis of Data

Descriptive statistics were used to characterize the sample and summarize the sources of job satisfaction and dissatisfaction. The latter information provided data relative to answering the first research question: What are the sources of job dissatisfaction and job satisfaction among Air Force CRNAs? Pearson Product Moment correlation was used to test study hypotheses. For all tests of hypotheses, an alpha level of 0.05 was set as a basis for determining statistical significance. Chapter IV includes the results of these analyses.

Chapter IV

Presentation and Analysis of Data

As stated previously, the purpose of this study was to describe and determine the relationship between job satisfaction, organizational commitment, and career intentions of Air Force nurse anesthetists. The research questions to be answered were:

1. What are the sources of job dissatisfaction and job satisfaction among Air Force nurse anesthetists?

2. What is the correlation between job satisfaction and organizational commitment among Air Force nurse anesthetists?

3. What is the correlation of job satisfaction with intent to stay?

4. What is the correlation of organizational commitment with intent to stay?

The following study hypotheses were tested by the data collected:

Hypothesis 1. There is a positive correlation between job satisfaction and organizational commitment among Air Force CRNAs.

Hypothesis 2. There is a positive correlation between job satisfaction and intent to stay among Air Force nurse anesthetists.

Hypothesis 3. There is a positive correlation between

organizational commitment and intent to stay among Air Force CRNAs.

This chapter includes the results of the data analyses. Characteristics of the sample are presented in the first section. Descriptions of the results of tests of the study hypotheses follow.

Descriptive Characteristics of the Sample

Table 1 presents the age, sex, and marital status of the survey respondents. Approximately 16% (24) of the CRNAs were between 29 and 35 years of age, while 44% (67) were between 36 and 40 years, and almost 31% (47) were between 41 and 45 years old. Just over 9% (14) of the CRNAs were between the ages of 46 and 55 years. The range was 29 to 55 years, with a mean of 39.7 years and a standard deviation of 4.64.

As shown, 82.5% (127) of the respondents were male and 17.5% (27) were female. Table 1 also shows that most of the CRNAs (81.9%) participating in the study were married.

Table 2 presents the highest educational levels obtained by the survey participants. A diploma or an Associate Degree in Nursing was the highest educational level obtained by approximately 8% (12) of the CRNAs, while for 42.2% (65), the highest educational level achieved was a Bachelors degree in Nursing. Only 4% (6) had received a Masters degree in Nursing. Nearly 46% (71) of the CRNAs

Table 1. Demographic Characteristics of Respondents in USAF CRNA Job Satisfaction Survey

Response	Number	Percent
Age		
29 - 35	24	15.8
36 - 40	67	44.1
41 - 45	47	30.9
46 - 50	10	6.6
51 - 55	4	2.6
Totals	152*	100.0
Sex		
Male	127	82.5
Female	27	17.5
Totals	154	100.0
Marital Status		
Single	13	8.4
Married or living as married	126	81.9
Widowed, Divorced, or Separated	15	9.7
Totals	154	100.0

*Number not equal to 154 due to missing data.

responding had obtained Bachelors or Masters degrees in disciplines other than nursing.

The educational preparation the subjects received in order to become CRNAs is included in Table 3. A large proportion (72.2%) had obtained a certificate as the educational preparation foundation for their practice, while 20.1% (31) had earned a Bachelors degree and 4.5% (7) a Masters degree. Experience as a CRNA ranged from one to 35

Table 2. Highest Educational Levels of Respondents in USAF CRNA Job Satisfaction Survey

Educational Level	Number	Percent
Diploma	6	3.9
AD in Nursing	6	3.9
BS in Nursing	65	42.2
MS in Nursing	6	3.9
Bachelors non-nursing	29	18.8
Masters non-nursing	40	26.0
PhD non-nursing	2	1.3
Totals	154	100.0

Table 3. Educational Preparation of CRNA Respondents in USAF CRNA Job Satisfaction Survey

CRNA Preparation	Number	Percent
Certificate	111	72.2
Bachelors	31	20.1
Masters	7	4.5
Other	5	3.2
Totals	154	100.0

years, with a mean of 9.01 years, and a standard deviation of 5.63.

Table 4 presents the military rank of the CRNAs in the study. Approximately 33% (49) were captains, 56% (84) were majors, 10.7% (16) were lieutenant colonels and one respondent held the rank of colonel.

Service time the survey respondents had accrued toward retirement is displayed in Table 5. Approximately 18% (27) had been in the service for less than 10 years, while nearly

Table 4. Rank of Respondents in USAF CRNA Job Satisfaction Survey

Rank	Number	Percent
Captain	49	32.7
Major	84	55.9
Lt Colonel	16	10.7
Colonel	1	0.7
Totals	150*	100.0

*Number not equal to 154 due to missing data.

31% had between 10 to 13 years in the military. Almost 34% (51) had served between 14 to 17 years, and 18% (27) of the CRNAs had served between 18 and 21 years. The range was from one to 21 years, with a mean service time of 13.2 years, and a standard deviation of 4.42.

Table 5. Service Time Toward Retirement of Respondents in USAF CRNA Job Satisfaction Survey

Service Time in Years	Number	Percent
0 - 9	27	17.9
10 - 13	46	30.5
14 - 17	51	33.7
18 - 21	27	17.9
Totals	151*	100.0

*Number not equal to 154 due to missing data.

Table 6 shows staffing patterns of CRNAs and MDAs (anesthesiologists) at facilities where respondents were based. Approximately 6% (9) of the CRNAs were assigned

alone to their Medical Treatment Facility (MTF), while nearly 47% (69) were assigned to facilities that had two CRNAs. Almost half (49%) of the CRNAs were assigned to facilities without MDAs. Additionally, 26% (38) were assigned to facilities with one or two MDAs. The range of CRNAs assigned to a facility was one to 14, with a mean of 3.8, and a standard deviation of 3.04. The staffing of MDAs ranged from zero to 18, with a mean of 2.27, and a standard deviation of 4.09.

Table 6. Staffing Patterns of CRNAs and MDAs* in USAF CRNA Job Satisfaction Survey

Staffing	Number**	Percent
	CRNA Staffing	
1 CRNA	9	6.1
2 CRNAs	69	46.9
3- 5 CRNAs	43	29.3
6-14 CRNAs	26	17.7
Totals	147	100.0
	MDA Staffing	
0 MDAs	71	49.0
1- 2 MDAs	38	26.2
3-18 MDAs	36	24.8
Totals	145	100.0

*Anesthesiologists
**Number less than 154 due to missing data.

The distribution of the departure steps of CRNA survey participants is indicated in Table 7. Almost 64% (93) were seriously considering separating from the Air Force in the next two years, while 34% (49) were actively engaged in a

job search, and 11.6% (17) of the CRNAs had already turned in papers for separation from the military.

Table 7. Departure Steps of Respondents in USAF CRNA Job Satisfaction Survey

Responses	Number*	Percent
Considering Getting Out in Two Years		
Yes	93	63.7
No	53	36.3
Totals	146	100.0
Actively Engaged in a Job Search		
Yes	49	34.0
No	95	66.0
Totals	144	100.0
Papers Turned in for Separation		
Yes	17	11.6
No	130	88.4
Totals	147	100.0

*Numbers not equal to 154 due to missing data.

The responses of CRNAs to the statement, "I will definitely remain on active duty until I am eligible for retirement" are presented in Table 8. This statement was used as the measure of career intentions. As shown, 24.2% (37) subjects strongly disagreed with the statement they would remain on active duty until retirement, while 11.8% (18) moderately disagreed. Approximately 21% (33) of those participating neither agreed nor disagreed with the statement. Of those CRNAs contemplating retirement, 13.7%

(21) CRNAs moderately agreed and 28.% (44) strongly agreed they would remain on active duty until retirement.

Table 8. Career Intentions of Respondents in USAF CRNA Job Satisfaction Survey

Response to Statement: I will definitely remain on active duty until I am eligible for retirement.

Response	Number	Percent
Strongly Disagree	37	24.2
Moderately Disagree	18	11.8
Uncertain	33	21.6
Moderately Agree	21	13.7
Strongly Agree	44	28.7
Totals	153*	100.0

*Number not equal to 154 due to missing data.

Table 9 presents the data regarding career intentions by departure steps. Seventeen (11%) of the CRNAs participating in this study have turned in papers for separation and therefore, planned on leaving active duty in the next six months. (These plans may be involuntarily altered due to events in the Persian Gulf.)

Approximately 20 (13%) CRNAs with 18-21 years of service time and who definitely intended to retire, were seriously considering separating in the next two years. Of the 32 CRNAs who clearly had no intention of remaining until retirement and were seriously considering separating in two years, 23 were actively engaged in a job search. At a minimum, the Air Force can expect to lose the 23 (15%) CRNAs

Table 9. Career Intentions of Survey Respondents by Departure Behaviors

Intentions	Yes		No	
	Number	Percent	Number	Percent
Considering Getting Out in Two Years (N = 145*)				
Definitely plan to Separate prior to Retirement	32	34.5	3	5.8
Probably plan to Separate prior to Retirement	15	16.1	2	3.8
Uncertain	23	24.7	7	13.5
Probably will retire	3	3.2	17	32.7
Definitely will retire	20	21.5	23	44.2
Totals	93	100.0	52	100.0
Engaged in Job Search Activity (N = 143*)				
Definitely plan to Separate prior to Retirement	23	46.9	11	11.7
Probably plan to Separate prior to Retirement	7	14.3	10	10.6
Uncertain	10	20.4	21	22.3
Probably will retire	0	0.0	19	20.2
Definitely will retire	9	18.4	33	35.2
Totals	49	100.0	94	100.0
Papers Turned in for Separation (N = 146*)				
Definitely plan to Separate prior to Retirement	7	41.2	28	21.7
Probably plan to Separate prior to Retirement	1	5.9	16	12.4
Uncertain	1	5.9	30	23.3
Probably will retire	1	5.9	19	14.7
Definitely will retire	7	41.1	36	27.9
Totals	17	100.0	129	100.0

*Number not equal to 154 due to missing data.

Table 10. Survey Respondents' Career Intentions by Departure Steps

	Yes		No		
Intentions	Number	Percent	Number	Percent	X^2*
	Considering Getting Out in Two Years (N = 145**)				38.5***
Intend to Separate	47	50.6	5	9.6	
Uncertain	23	24.7	7	13.5	
Plan to Retire	23	24.7	40	76.9	
Totals	93	100.0	52	100.0	
	Engaged in Job Search Activity (N = 143**)				24.0***
Intend to Separate	30	61.2	21	22.3	
Uncertain	10	20.4	21	22.3	
Plan to Retire	9	18.4	52	55.4	
Totals	49	100.0	94	100.0	
	Papers Turned in for Separation (N = 146**)				2.91
Intend to Separate	8	47.1	44	34.1	
Uncertain	1	5.8	30	23.3	
Plan to Retire	8	47.1	55	42.6	
Totals	17	100.0	129	100.0	

* X^2 df = 2
** Numbers not equal to 154 due to missing data.
*** p = .001

who definitely intend to separate and are looking for a job plus, the 20 (13%) CRNAs who will be retiring in the next two years for a total of 43 (28%). If the nine CRNAs who

indicated they definitely planned to separate prior to retirement but were not yet engaged in a job search are included, the total attrition in the next two years rises to 52 (33%).

Information regarding departure steps with career intentions is presented in Table 10. Career intentions were significantly related to two of the three departure steps, namely, considering getting out in two years and active engagement in job search activity (X^2 = 38.5, p = .001; X^2 = 24.0, p = .001, respectively). There was no significant relationship between career intentions and having turned in papers for separation.

Table 11 shows information concerning service time and career intentions. Analysis revealed that service time toward retirement and career intentions were significantly related (X^2 = 53.3, p = .001).

Table 11. Service Time Toward Retirement by Career Intentions of Survey Respondents*
(N = 150**)

	Intend to Separate		Uncertain		Plan To Retire	
Years in Service	#	%	#	%	#	%
0 - 9	18	33.3	6	18.7	3	4.7
10 - 13	25	46.3	12	37.5	8	12.5
14 - 17	9	16.7	12	37.5	30	46.9
18 - 21	2	3.7	2	6.3	23	35.9
Totals	54	100.0	32	100.0	64	100.0

* X^2 = 53.31, df = 2, p = .001
** Number not equal to 154 due to missing data.

Organizational Commitment and Job Satisfaction Scores are presented in Table 12. These scores, as mentioned previously, were converted to percentiles for ease of interpretation. The range of the Organizational Commitment Scores was zero to 94%, with a mean of 45.44%, and a standard deviation of 17.74. The range of Job Satisfaction Scores was six to 72%. For this variable, the mean was 46.99% and the standard deviation was 11.42.

Table 12. Organizational Commitment, Job Satisfaction Scores of Survey Respondents
(N = 153*)

Variable	Range	Mean	Standard Deviation
Organizational Commitment	0 - 94	45.44	17.74
Job Satisfaction	6 - 72	46.99	11.42

*Number not equal to 154 due to missing data.

The Job Satisfaction Component Scores are shown in rank order in Table 13. Mean scores ranged from 13.88 to 67.46%, with the scores for professional status and pay ranking highest and lowest, respectively. Within the interaction component, scores were higher for nurse-nurse interaction compared to that of physician-nurse interaction. The table also indicates that the range of scores for all subcomponents combined was zero to 100%. The variability stemming from the wide range of scores is reflected in the

standard deviation values (19.44 - 25.48).

Table 13. Job Satisfaction Component Scores of Survey Respondents
(N = 153*)

Variable	Range	Mean	Standard Deviation
Professional Status	13 - 100	67.48	19.52
Interaction	0 - 100	65.42	19.44
Nurse-Nurse	0 - 100	78.65	25.48
Physician-Nurse	0 - 100	52.69	20.42
Autonomy	0 - 100	65.03	23.44
Task Requirements	0 - 100	43.54	22.44
Organizational Policies	0 - 100	38.23	24.80
Promotional Opportunities	0 - 100	16.58	22.97
Pay	0 - 100	13.88	19.53

*Number not equal to 154 due to missing data.

The paired comparisons of job satisfaction components indicates the importance placed on each component by the CRNAs. The subjects' rankings of the importance of satisfaction components were as follows: 1) autonomy, 2) promotional opportunities, 3) pay, 4) professional status, 5) interactions, 6) task requirements, and 7) organizational policies.

Research Questions

Tables 14 and 15 include subjects' responses to the first research question: What are the sources of job satisfaction and dissatisfaction among Air Force nurse anesthetists? Responses were categorized for ease of interpretation. Table 14 lists sources of job satisfaction identified by 10 or more survey respondents. Additional sources of satisfaction identified by fewer than ten survey respondents are listed in Appendix J. The three most

Table 14. Sources of Job Satisfaction Among Respondents in USAF CRNA Job Satisfaction Survey
(N = 154)

Sources of Job Satisfaction	Number	Percent
Autonomy		
Independent practice	60	39.0
Autonomy	47	30.5
Regional anesthesia experience	32	20.8
Interaction		
People worked with and have met	31	20.1
Professional Status		
Professional status and respect received	25	16.2
Organizational Policies		
Educational opportunities	29	18.8
Travel opportunities	25	16.2
Opportunities and experiences inherent to the military	20	13.3
Military retirement	10	6.5

frequently menticned sources of satisfaction were related to autonomy. These include independent practice and the opportunity to practice regional anesthesia. Satisfaction with interaction (people worked with and met) was identified by 20% (31) of the CRNAs, while satisfaction with professional status was mentioned by 16% (25). The remaining sources of satisfaction reported by subjects were associated with benefits from the organization or opportunities inherent to the military. The number of positive aspects identified by individual CRNAs ranged from zero to six, with a mean of two, and a standard deviation of 1.29.

Sources of job dissatisfaction listed by greater than 10 CRNAs are shown in Table 15. The most frequently mentioned source of dissatisfaction was dismal promotion opportunities (45.5%). There were two complaints associated with pay and four sources of dissatisfaction clustered around task requirements. Autonomy or professional constraints were identified by 8.4% (13) of the CRNAs. Two sources of dissatisfaction related to professional status were listed and the remaining complaints were associated with organizational policies. The number of negative aspects remarked on by individuals responding ranged from zero to 12, with a mean of three, and a standard deviation of 2.09. Additional sources of dissatisfaction identified by fewer than 10 CRNAs are listed in Appendix K. Recommendations made by survey participants for

Table 15. Sources of Job Dissatisfaction of Respondents in USAF CRNA Job Satisfaction Survey
(N = 154)

Sources of Job Dissatisfaction	Number	Percent
Promotions		
Dismal promotion opportunities	70	45.5
Pay		
Inadequate pay	49	31.8
Compensation incomparable with civilian CRNAs	12	7.8
Task Requirements		
Extensive paperwork/ committee work and administrative burdens	48	31.2
Excessive and uncompensated call	45	29.2
Long working hours	33	21.4
Inadequate staffing with no hope for improvement	14	9.1
Professional Status		
Conflict/ limited respect and recognition from Nursing Administration	20	13.0
Lack of professional respect from MDAs and other physicians	11	7.1
Organizational Policies		
Constant supply problem with poor logistical support	14	9.1
Insufficient administrative support from SG* and SGHN**	13	8.4
Little opportunity or support for professional TDY's***--either military or anesthesia related	12	7.8
Frequent moves with little or not input from CRNAs and limited contact with MPC****	11	7.1
Autonomy		
Professional constraints and practice constraints	13	8.4

* Hospital Administration
** Nursing Administration
*** Temporary assignment at a different location
**** Military Personnel Center (responsible for assignments)

organizational changes and improvements are shown in Appendix L.

Results of Hypotheses Testing

The three remaining research questions and the three related hypotheses test in this study addressed the relationship between job satisfaction, organizational commitment, and intent to stay. Pearson correlations of these variables are presented in Table 16. The hypothesis, "There is a positive correlation between job satisfaction and organizational commitment among Air Force CRNAs," was supported by the data. Analysis revealed a moderate positive correlation between job satisfaction and organizational commitment ($r = .4884$, $p < .05$).

The correlation between job satisfaction and intent to stay was weak, although statistically significant ($r = .2141$, $p < .05$). These data addressed the hypothesis, "There is a positive correlation between job satisfaction and intent to stay." The hypothesis was supported by the data; however, the low magnitude of the relationship must be noted.

The final hypothesis, "There is a positive correlation between organizational commitment and intent to stay statements among Air Force CRNAs," was supported by the data ($r = .3351$ and $p < .05$). Again, while statistically significant, the correlation coefficient was low.

Table 16. Pearson Correlations of Job Satisfaction, Organizational Commitment, Intent to Stay, and Job Satisfaction Components
(N = 153*)

	Job Satisfaction	Organizational Commitment	Intent To Stay
Organizational Commitment	.4884**	-	.3351**
Job Satisfaction	-	.4884**	.2141**
Job Satisfaction Components			
Autonomy	.7367**	.3844**	.0991
Promotion Opportunities	.1283**	-.0190	-.0013
Pay	.4167**	.2319**	.0522
Professional Status	.5308**	.1187	.0389
Interaction	.7216**	.2224**	.1357**
Task Requirements	.4496**	.5187**	.2110**
Organizational Policies	.6010**	.3645**	.2237**

*Number not equal to 154 due to missing data.
** p .05

With regard to the job satisfaction components, task requirements had the strongest correlation of any component with organizational commitment ($r = .5187$, $p < .05$). Autonomy ($r = .3645$, $p < .05$) and organizational policies ($r = .3645$, $p < .05$) also had a modest correlation with organizational commitment. Promotional opportunities was not significantly related to organizational commitment or

career intentions and the resultant direction was negative. All of the job satisfaction components demonstrated almost no correlation with career intentions; further, four coefficients were less than 0.1.

To further clarify the relationships between study variables, the differences between career intention groups and the variables were examined by ANOVA. Table 17 shows the summary of ANOVA for career intention groups and job

Table 17. Summary of ANOVA of Career Intentions and Job Satisfaction Scores
(N = 153*)

Group	Number	Mean	Standard Deviation
1. Plan to Separate Prior to Retirement	55	44.09	12.30
2. Uncertain	33	46.59	8.49
3. Plan to Retire	65	49.66	11.47

Source	df	SS	MS	F	P
Between	2	932.08	466.04	3.69	.027
Within	150	18904.48	126.02		

*Number not equal to 154 due to missing data.

satisfaction scores. In looking at the means, it can be seen that those who planned to separate prior to retirement scored lower in satisfaction than those whose career plans

were uncertain or those who definitely planned to stay until retirement. The F value of 3.69 was significant (p = .02). Post hoc analysis using the Scheffé method indicated the mean satisfaction scores were significantly different between those who intended to separate prior to retirement and those who intended to retire.

Table 18 presents the summary of ANOVA for career intention groups and organizational commitment. Those who

Table 18. Summary of ANOVA of Career Intentions and Organizational Commitment
(N = 153*)

Group	Number	Mean	Standard Deviation
1. Plan to Separate Prior to Retirement	55	37.27	16.61
2. Uncertain	33	50.00	14.17
3. Plan to Retire	65	50.04	18.02

Source	df	SS	MS	F	P
Between	2	5735.15	2867.57	10.21	.0001
Within	150	42116.14	280.77		

*Number not equal to 154 due to missing data.

planned to separate prior to retirement scored lower in organizational commitment than those whose career plans were uncertain or those who planned to stay until retirement. The F value of 10.21 was significant (p = .0001). A Scheffé

test revealed those who intended to separate prior to retirement were significantly different from both remaining groups--those whose plans were uncertain and those who definitely intended to retire.

Chapter V presents an overview of the study and a summary of the findings. Conclusions and recommendations for further study are also discussed.

Chapter V

Summary, Conclusions, and Recommendations

Overview of Study

The issue of attraction to and retention of nursing professionals to an organization is a problem in both the military and private sectors of society. A May 1989 study of military Certified Registered Nurse Anesthetists (CRNAs) conducted by the American Association of Nurse Anesthetists (AANA) projected a potential loss of over 60% of active duty CRNAs in the next two years. Since over 75% of all anesthetics administered in the United States Air Force (USAF) are administered by CRNAs, the impact of this loss of personnel cannot be overstated.

The purpose of this research was to identify and describe the variables associated with turnover of USAF CRNAs. Specifically, the goal was to describe and determine the relationship between job satisfaction, organizational commitment, and the intent to stay among Air Force nurse anesthetists. A secondary goal was to test Mottaz's (1987) conceptual model of job satisfaction and organizational commitment and Bluedorn's (1982) unified model of turnover. The research questions posed were:

1. What are the sources of job dissatisfaction and job satisfaction among Air Force nurse anesthetists?

2. What is the correlation between job satisfaction and organizational commitment among Air Force nurse anesthetists?

3. What is the correlation of job satisfaction with intent to stay?

4. What is the correlation of organizational commitment with intent to stay?

The following study hypotheses were tested:

Hypothesis 1. There is a positive correlation between job satisfaction and organizational commitment among Air Force CRNAs.

Hypothesis 2. There is a positive correlation between job satisfaction and intent to stay among Air Force nurse anesthetists.

Hypothesis 3. There is a positive correlation between organizational commitment and intent to stay statements among Air Force CRNAs.

A non-experimental, cross-sectional study was conducted to answer the research questions and test the study hypotheses. Data were gathered by questionnaires mailed to all active duty Air Force CRNAs at their base. The total sample size of 154 reflected a response rate of 74%.

The questionnaire was composed of five parts. Section I included demographic information and characteristics of the facility where the CRNAs were assigned. Sections II and III addressed job satisfaction, while Section IV measured organizational commitment. Section V provided space for comments and recommendations.

Descriptive statistics were used to characterize the sample. Pearson product moment correlation analysis was used to study the relationship between job satisfaction, organizational commitment, and intent to stay. Additionally, ANOVA was used to examine the differences between and among career intention groups with regard to job satisfaction and organizational commitment.

Summary of Findings

The mean age of CRNAs was 39.7 years. Approximately 83% (127) were male and a like proportion (82%) were married. The predominant highest educational level achieved by CRNAs was a Bachelors degree in nursing (42%). Those receiving a certificate as the basic educational preparation for their practice as a CRNA comprised the largest proportion of the sample (72%). The years of experience subjects had practiced as CRNAs ranged from one to 35 years, with a mean of nine.

Approximately 89% of the CRNAs held the rank of captain or major and nearly half (48%) had less than 13 years of service time in the military. The majority (53%) of the subjects were assigned to facilities staffed with one or two CRNAs. In terms of career intentions, 64% of the sample reported they were seriously considering separating from the Air Force in the next two years; 34% (49) were actively engaged in a job search, and 11.6% (17) had already turned in papers for separation from the military.

Approximately 24% (37) of the subjects had no intention of remaining in the Air Force until retirement, while 12% (18) indicated they probably planned to separate before retirement. At the other end of the scale, the percentages were similar. Nearly 29% (44) definitely planned to retire from the Air Force, and an additional 14% (21) probably planned to retire. One fifth, 21% (33), were ambivalent regarding their career intentions.

Chi Square analysis revealed significant ($p < .05$) relationships between career intentions and departure behaviors, e.g., considering separating in two years and engaging in a job search. There was no significant relationship between career intention groups and the actual step of departure, turning in papers for separation.

Job Satisfaction scores ranged from 6% to 72%, with the mean being 46.99%. Organizational commitment scores ranged from zero to 94%, with a mean of 45.44%.

Using paired comparisons, CRNAs ranked job satisfaction components in importance as follows: 1) autonomy, 2) promotional opportunities, 3) pay, 4) professional status, 5) interactions, 6) task requirements, and 7) organizational policies. Autonomy, ranked number one in importance, received a component satisfaction score ranging from zero to 100% (mean = 65%), and had the third highest satisfaction component score. Promotional opportunities and pay, ranked as the second and third most important components, received the two lowest satisfaction scores. The promotional

opportunities component scores ranged from zero to 100%, with a mean of 16.6%. The pay component score also ranged from zero to 100% and had a mean of 13.8%.

The three most frequently mentioned sources of satisfaction were related to autonomy. Satisfaction with interaction (people worked with and met) was identified by 20% (31) of the CRNAs, while satisfaction with professional status was mentioned by 16% (25).

The most frequently mentioned source of dissatisfaction was dismal promotional opportunities (45.5%). There were two complaints associated with pay and four sources of dissatisfaction clustered around task requirements. Autonomy or professional constraints were identified by 8.4% (13) of the CRNAs. Two sources of dissatisfaction related to professional status were reported by respondents and the remaining complaints were associated with organizational policies.

The first hypothesis, "There is a positive correlation between job satisfaction and organizational commitment among Air Force CRNAs," was supported by the data. Pearson correlations revealed a moderate, positive correlation between job satisfaction and organizational commitment ($r = .4884$, p .05).

Pearson correlations demonstrated a weak, positive correlation between job satisfaction and intent to stay ($r = .2141$, p .05). The second hypothesis, "There is a positive correlation between job satisfaction and intent to stay among Air Force nurse anesthetists," was also supported by

the data; however, the low magnitude of the relationship must be noted.

The correlation between organizational commitment and intent to stay was somewhat stronger ($r = .3351$, $p < .05$) and supported the third hypothesis, "There is a positive correlation between organizational commitment and intent to stay statements among Air Force CRNAs."

With regard to job satisfaction component correlations, task requirements had the strongest correlation of any components with organizational commitment ($r = .5187$, $p < .05$). Autonomy ($r = .3844$, $p < .05$) and organizational commitment ($r = .3645$, $p < .05$) also had a modest correlation with organizational commitment. The component, promotional opportunities, was not significantly related to organizational commitment or career intentions and the resultant direction was negative. All of the job satisfaction components demonstrated almost no correlation with career intentions; four coefficients were less than 0.1.

To further clarify the relationships between study variables, the differences between career intention groups and the variables were tested with ANOVA. Looking at three career intention groups and job satisfaction scores, results indicated a significant ($p < .05$) difference in satisfaction scores between those who intended to separate prior to retirement and those who intended to stay until retirement.

The results of ANOVA between three career intention

groups with organizational commitment revealed significant ($p < .05$) differences between the organizational commitment scores of those who intended to separate and the two other groups--those who intended to retire and those who were uncertain.

Conclusions

The May 1989 AANA study of military CRNAs listed several conclusions supported by this research. The most noteworthy, the projection of a potential loss of 60% of CRNAs on active duty over the next two years does draw attention to the serious CRNA attrition problem of the military. Seventeen (11%) CRNAs participating in this research have turned in papers for separation processing, which takes six months. (These plans may be involuntarily altered due to events in the Persian Gulf.)

At a minimum, the Air Force can expect to lose the 23 (15%) CRNAs who intend to separate and are looking for another job, plus the 20 (13%) CRNAs who will be retiring in the next two years for a total of 43 (28%). If the nine CRNAs who indicated they definitely planned to separate prior to retirement but were not yet engaged in a job search are included, the total attrition in the next two years, as indicated by the data from this research, rises to 52 (33%).

Projecting to the population of 214 active duty Air Force CRNAs listed at the beginning of this study a

conservative estimate would be a loss of 60 (28%) CRNAs in the next two years, with a more likely number approaching 70 (33%). These percentages of attrition are based on the number of active duty CRNAs listed by the Military Personnel Center at the beginning of this study. Thus, these percentages would not reflect the augmentation of CRNAs through education programs and recruitment.

The subjects in this study ranked the top four important job satisfaction components as autonomy, promotional opportunities, pay, and professional status. This finding is slightly different from that of Martino's (1990) study of CRNAs who had separated from the Air Force. Martino's data revealed that the top four components were pay, autonomy, professional status, and task requirements. Thompson's (1981) study of Pennsylvania CRNAs suggested the ranking of importance of job satisfaction components as 1) pay, 2) working conditions, 3) autonomy, and 4) anesthesiologist support. The differences in rankings may be accounted for by the differences in the populations studied (former Air Force CRNAs and civilian CRNAs) and variations in the components measured in each study. Stamps and Piedmonte's (1981) review of studies of hospital nursing staff indicated the most likely ranking of importance to be 1) autonomy, 2) pay, 3) professional status. These results were consistent with this study, considering that the component, promotional opportunities, is closely tied with pay and professional status.

The mean autonomy satisfaction score was 65% and the top three identified sources of satisfaction were related to or were autonomy (independent practice, autonomy, and opportunity to practice regional anesthesia). The second and third most important components were far from being a source of satisfaction. Promotional opportunities and pay had the two lowest satisfaction scores and both were mentioned as the top two sources of dissatisfaction. This supports an additional conclusion of the AANA (1989) study, namely, that pay and promotions have assumed great importance as career incentives.

Promotional opportunities in the Nurse Corps are restricted by multiple variables, some beyond the control of the individual. Educational background, particularly the completion of graduate work in the area of nursing, is one criterion for promotions. However, only 4% of the CRNAs in this study had obtained a Masters in nursing. The two years post-graduate work done by 72% to obtain a certificate as an educational preparation for CRNA practice is valueless in competing for promotions.

The opportunity for CRNAs to complete graduate work in nursing is further complicated as over half (53%) of the CRNAs were assigned to facilities staffed with one or two CRNAs. These facilities are generally geographically isolated and require extensive call time. Furthermore, as the number of CRNAs in the Air Force is inadequate, opportunities for Professional Military Education (PME) in residence or full time graduate studies are limited.

The negative correlation of promotional opportunities is inconsistent with most theories of job satisfaction and commitment. The measurement of this component was developed by the investigator and thus its validity must be questioned.

Mottaz's (1987) conceptualizations of satisfaction and commitment were supported by the findings. There was extreme positioning of the components of pay and promotional opportunities, in both their ranking of importance and in the satisfaction scores. This supports Mottaz's position that the strength of a particular component (such as pay) in predicting satisfaction is dependent upon the ranking or value the individual places upon that component. Locke's (1969) arguement, that when an individual values something highly, he feels satisfaction or dissatisfaction more strongly, was also supported by these findings.

Since almost two thirds (64%) of the CRNAs in this research were thinking of leaving in two years, and one third (34%) were actively engaged in a job search, the data clearly indicate a serious potential turnover problem. Analysis of the departure steps of CRNAs revealed significant relationships with career intentions, thus supporting Bluedorn's (1982) unified model of turnover integrated with Mobley's (1979) model of the employee turnover decision process.

Implications for Nursing

Because the specific population sampled was a nursing subspecialty in a military setting, generalization to nursing as a whole is limited; however, some inferences may be made. This study supports previous data (Stamps and Peidmonte, 1981) suggesting that autonomy, pay, and professional status predominate in importance to nurses. The review of sources of satisfaction and dissatisfaction identified by the survey participants reveals areas that may be altered by management to improve satisfaction. Thus, similar studies of nurses could also provide information needed to improve satisfaction and retention. Measurement of organizational commitment, as this study found, could be of increasing value for nursing management to assess an intent to stay with an organization. In this time of nursing shortages and declining interest in nursing as a career, studies focusing on career intentions and the associated variables of job satisfaction and organizational commitment may provide data for management analysis in the problem of turnover.

Recommendations

Future research endeavors should focus on further development and construction of more concise instruments measuring job satisfaction and organizational commitment. Additional research comparing these study results with those of CRNAs in other military branches or even the Veterans Administration setting would be interesting. Replication of this research in the same population and associated populations (CRNAs in other military branches and other nursing subspecialties such as midwifery) would be helpful in comparing results and assessing trends in turnover and its associated variables.

The Air Force Nurse Corps' ability to manipulate promotional opportunities and pay of CRNAs is restricted by Congressional mandates. In light of the documented attrition of CRNAs and the importance placed on pay, a substantial professional bonus may be helpful in slowing turnover. The Nurse Corps does have the ability to manipulate and improve the practice environment and associated concerns of CRNAs. In depth analysis of the sources of satisfaction and dissatisfaction would be helpful for management review for retention purposes.

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APPENDIX A

QUESTIONNAIRE

Job Satisfaction

A Survey of USAF Nurse Anesthetists

USAF SCN: 90-57
(Exp. 31 Dec. 90)

Section II and parts of Section III have been used with permission from *Nurses and Work Satisfaction: An Index for Measurement* by Paula L. Stamps and Eugene B. Piedmonte (Ann Arbor, MI: Health Administration Press, 1986).

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Study ID:	(1-3
Serial #:	(4-6

USAF CRNA JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT SURVEY

SECTION I: DEMOGRAPHIC DATA

These first questions ask about your personal characteristics, your career plans and about your work situation.

INSTRUCTIONS: Please **circle** the number corresponding to your answer or **fill in** the information requested. Ignore the numbers in parentheses. They are for coding purposes.

1. What is your current age in years? _____ (7-8)

2. What is your sex?
   - MALE 1
   - FEMALE 2 (9)

3. What is your current marital status?
   - SINGLE (NEVER MARRIED) 1
   - MARRIED, OR LIVING AS MARRIED 2
   - WIDOWED, DIVORCED OR SEPARATED 3 (10)

4. Do you have children (minors) who are living with you?
   - YES 1
   - NO 2 (11)

5. What is the highest educational level you have completed?
   - DIPLOMA 1
   - ASSOCIATE DEGREE IN NURSING 2
   - BACCALAUREATE DEGREE IN NURSING 3
   - MASTER'S DEGREE IN NURSING 4
   - DOCTORATE DEGREE IN NURSING 5
   - OTHER (INDICATE DEGREE AND MAJOR) 6

   _____ (12)

6. What type of educational preparation did you receive to become a CRNA?
   - CERTIFICATE 1
   - BACHELOR'S DEGREE 2
   - MASTER'S DEGREE 3
   - OTHER (PLEASE INDICATE) 4

   _____ (13)

7. How many years have you practiced as a CRNA? _____ (14-15)

8. What is your current rank grade?
   - 1 LT . . . 2
   - CAPT . . . 3
   - MAJOR . . . 4
   - LT COL . . . 5
   - COL . . . 6 (16)

9. How many years have you been in the military that count toward retirement? _____ (17-18)

10. Do you have an active duty service commitment (ADSC)?
    - YES . . . 1
    - NO . . . 2 (19)

    If "YES," how long is your remaining ADSC (in years)? _____ (20-21)

11. To which major command are you assigned? _____ (22)

12. Approximately how many hospital beds does your medical facility have? _____ (23-25)

13. How many operating rooms does your facility run on an average day? _____ (26-27)

14. How many CRNAs are **assigned** to your facility? ASSIGNED _____ (28-29)

15. How many CRNAs are **authorized** for your facility? AUTHORIZED _____ (30-31)

16. How many MDAs are **assigned** to your facility? ASSIGNED _____ (32-33)

17. How many MDAs are **authorized** for your facility? AUTHORIZED _____ (34-35)

18. Who takes in house call in your facility?
    - CRNA . . . 1
    - MDA . . . 2
    - NEITHER . . . 3
    - BOTH . . . 4 (36)

    If there is no in house call do CRNAs take first call in your facility?
    - YES . . . 1
    - NO . . . 2 (37)

19. If MDAs are assigned to your facility, but CRNAs take first call, please estimate the percentage of emergency cases for which MDAs come into the hospital ..... ____ % (38-39)

20 Approximately how many hours are you on call per week? ..... _____ (40-41)

21. How many hours per week on the average while on call, do you administer anesthesia? ..... _____ (42-43)

22. Do you receive compensatory time off for call time worked?
YES 1
NO 2 (44)

23 Does the commander of your facility permit "moonlighting?"
YES 1
NO 2 (45)

24 Do you "moonlight?
YES 1
NO 2 (46)

If "YES," please estimate the number of hours per **month** you "moonlight" ..... _____ (47-49)

25 Is there a supervisory ratio of MDA to CRNA utilized in your facility?
YES 1
NO 2 (50)

If "YES," what is the ratio? ..... _____ (51)

26 To what extent are operating rooms closed if this ratio is not met?
NEVER 1
OCCASIONALLY 2
USUALLY 3
FREQUENTLY 4 (52)

27 Are there any types of surgical cases where CRNAs are routinely not assigned in your facility?
YES 1
NO 2 (53)

If "YES," what type?

_____ (54)

28. Are there any types of surgical cases where CRNAs must either have a MDA's permission, or a MDA must be present for the CRNA to administer the anesthesia?

YES 1
NO 2 (55)

If "YES," what type?

_____ (56)

29 In addition to your Officer evaluation, are you also professionally evaluated by an MDA?

YES 1
NO 2 (57)

If "YES," how often? . . . . . _____ (58)

30. Have you had at least one passover to promotion to grades 0-4 or 0-5?

YES 1
NO 2 (59)

31 Have you put in your papers to retire or get out of the service?

YES 1
NO 2 (60)

32 Are you seriously considering getting out of the service in the next two years?

YES 1
NO 2 (61)

33 Are you actively engaged in a job search?

YES 1
NO 2 (62)

34. Please describe below what are the most **positive** aspects of your experience as a CRNA in the USAF. (63-64)

35. Please describe what are the most **negative** aspects of your experiences as a CRNA in the USAF (65-66)

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SECTION II: JOB SATISFACTION – PART A

INSTRUCTIONS. Listed and briefly defined below are seven terms or factors that are involved in how people feel about their work situation. Each factor has something to do with "job satisfaction." We are interested in determining which of these is most important to you in relation to the others, **irrespective of any particular employment setting**. Please carefully read the definitions for each factor as given below:

Pay: dollar amount renumeration and fringe benefits received for work done.

Autonomy: amount of job-related independence, initiative, and freedom, either permitted or required in daily activities.

Task Requirements: tasks or activities that must be done as a regular part of the job.

Organizational Policies: management policies and procedures put forward by the facility and the organization.

Interaction: opportunities presented for both formal and informal social and professional contact during working hours.

Professional Status: overall importance or significance felt about our job, both in your view and in the view of others.

Promotional Opportunities: opportunities to rise to a higher rank or position in the organization.

These factors are presented in pairs on the questionnaire. Only 21 pairs are presented; this is every set of combinations. No pair is repeated or reversed.

For each pair of terms, decide which one is more important for your job satisfaction or morale. Please indicate your choice by a check on the line in front of it.

It will probably be difficult to make choices in some cases. However, please do try to select the factor which is more important to you. Please make an effort to answer every item; do not change any of your answers.

36. ___ Pay **or** ___ Organizational Policies (7)

37. ___ Promotional Opportunities **or** ___ Professional Status (8

38. ___ Professional Status **or** ___ Organizational Policies (9)

39. ___ Pay **or** ___ Task Requirements (10)

40. ___ Organizational Policies **or** ___ Interaction (11)

41. ___ Task Requirements **or** ___ Organizational Policies (12)

42. ___ Interaction **or** ___ Promotional Opportunities (13)

43. ___ Professional Status **or** ___ Task Requirements (14)

44. ___ Pay **or** ___ Autonomy (15)

45. ___ Promotional Opportunities **or** ___ Pay (16)

46. ___ Professional Status **or** ___ Interaction (17)

47. ___ Organizational Policies **or** ___ Promotional Opportunities (18)

48. ___ Professional Status **or** ___ Autonomy (19)

49. ___ Interaction **or** ___ Task Requirements (20)

50. ___ Interaction **or** ___ Pay (21)

51. ___ Task Requirements **or** ___ Promotional Opportunities (22)

52. ___ Autonomy **or** ___ Task Requirements (23)

53. ___ Organizational Policies **or** ___ Autonomy (24)

54. ___ Promotional Opportunities **or** ___ Autonomy (25)

55. ___ Pay **or** ___ Professional Status (26)

56. ___ Interaction **or** ___ Autonomy (27)

SECTION III: JOB SATISFACTION – PART B

The following items represent statements about satisfaction with your occupation. Please respond to each item. It may be difficult to fit your response into one of the five categories. In that case, select the category that comes closest to your response to the statement. It is very important that you give your honest opinion. Please do not go back and change any of your answers.

INSTRUCTIONS: Please **circle** one number to indicate your response to each statement.

1 = Strongly Disagree
2 = Moderately Disagree
3 = Neither Agree or Disagree
4 = Moderately Agree
5 = Strongly Agree

57. My present salary is satisfactory 1 2 3 4 5 (28)

58. The personnel in my department don't hesitate to pitch in and help one another out in a crisis 1 2 3 4 5 (29)

59. I feel that I am supervised more closely than I need to be and more closely than I want to be 1 2 3 4 5 (30)

60. It is my impression that a lot of CRNAs in the Air Force are dissatisfied with their pay 1 2 3 4 5 (31)

61. Nurse anesthetists are a long way from being recognized as professionals 1 2 3 4 5 (32)

62. New personnel are quickly made to feel at home in my department 1 2 3 4 5 (33)

63. There is a great gap between the administration of this hospital and the daily problems of the anesthesia department 1 2 3 4 5 (34)

64. Whether or not I am promoted has little or no impact on my decision to remain in the Air Force 1 2 3 4 5 (35)

65. There is no doubt whatever in my mind that what I do on my job is really important 1 2 3 4 5 (36)

66. There is a lot of teamwork between the CRNAs and the MDAs at my facility 1 2 3 4 5 (37)

67. I am satisfied with the types of activities that I do on my job 1 2 3 4 5 (38)

68. There is ample opportunity for CRNAs to participate in the administrative decision-making process . . 1 2 3 4 5 (39)

69. I wish the physicians here would show more respect for the skill and knowledge of CRNAs 1 2 3 4 5 (40)

70. The Air Force requires me to participate in too many activities that are not related to my job 1 2 3 4 5 (41)

71. It is my impression CRNAs in general are satisfied with their promotion opportunities in the Air Force 1 2 3 4 5 (42)

72. I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up 1 2 3 4 5 (43)

SECTION IV: ATTITUDES ABOUT THE ORGANIZATION

The following series of statements represent possible feelings that individuals might have about the organization for which they work. With respect to your own feelings about the Air Force, please indicate the category that comes closest to your response to each statement.

INSTRUCTIONS Please **circle** one number to indicate your response to each item.

1 = Strongly Disagree
2 = Moderately Disagree
3 = Neither Agree or Disagree
4 = Moderately Agree
5 = Strongly Agree

73. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization to be successful 1 2 3 4 5 (44)

74. I talk up the Air Force to my friends as a great organization to work for 1 2 3 4 5 (45)

75. I find that my values and the organization's values are very similar 1 2 3 4 5 (46)

76. I am proud to tell others that I am part of the Air Force 1 2 3 4 5 (47)

77. Often, I find it difficult to agree with the Air Force's policies on important matters relating to its personnel ... 1 2 3 4 5 (48)

78. Deciding to join the Air Force was a definite mistake on my part 1 2 3 4 5 (49)

79. I will definitely remain on active duty until I am eligible for retirement 1 2 3 4 5 (50)

80. There's not too much to be gained by sticking with the Air Force indefinitely 1 2 3 4 5 (51)

81. I would accept almost any type of job assignment in order to stay in the service 1 2 3 4 5 (52)

SECTION V: ATTITUDES AND RECOMMENDATIONS

INSTRUCTIONS: Please write your opinions and recommendations for improving the job satisfaction of Air Force CRNAs. The categories given are to be used for organizing your suggestions. The last category of OTHERS is provided for recommendations which don't seem to fit into these factors of work satisfaction. PLEASE WRITE LEGIBLY.

AUTONOMY: (53-54)

APPENDIX B

JOB SATISFACTION PART B FROM STAMPS-PIEDMONTE

WORK SATISFACTION INDEX

WORK SATISFACTION INDEX BY COMPONENTS

Professional Status

2. Most people do not sufficiently appreciate the importance of nursing care to hospital patients.

9. Nursing is a long way from being recognized as a profession.

5. There is no doubt whatever in my mind that what I do on my job is really important.

34. It makes me proud to talk to other people about what I do on my job.

38. If I had the decision to make all over again, I would still go into nursing.

41. My particular job really doesn't require much skill or "know-how."

Task Requirements

4. There is too much clerical and "paperwork" required of nursing personnel in this hospital.

11. I think I could do a better job if I didn't have so much to do all the time.

22. I am satisfied with the types of activities that I do on my job.

24. I have sufficient time for direct patient care.

29. I have plenty of time and opportunity to discuss patient care problems with other nursing service personnel.

36. I could deliver much better care if I had more time with each patient.

Pay

1. My present salary is satisfactory.

8. Excluding myself, it is my impression that a lot of nursing personnel at this hospital are dissatisfied with their pay.

14. Considering what is expected of nursing service personnel at this hospital, the pay we get is reasonable.

21. The present rate of increase in pay for nursing service personnel at this hospital is not satisfactory.

32. From what I hear from and about nursing service personnel at other hospitals, we at this hospital are being fairly paid.

44. An upgrading of pay schedules for nursing personnel is needed at this hospital.

Interaction

Physician-Nurse Subcomponent

6. Physicians in general cooperate with the nursing staff on my unit.

19. There is a lot of teamwork between nurses and doctors on my own unit.

35. I wish the physicians here would show more respect for the skill and knowledge of the nursing staff.

37. Physicians at this hospital generally understand and appreciate what the nursing staff does.

39. The physicians at this hospital look down too much on the nursing staff.

Nurse-Nurse Interaction

3. The nursing personnel on my service don't hesitate to pitch in and help one another out when things get in a rush.

10. New employees are not quickly made to "feel at home" on my unit.

16. There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service.

23. The nursing personnel on my service are not as friendly and outgoing as I would like.

28. There is a lot of "rank consciousness" on my unit, with nursing personnel seldom mingling with others of lower ranks.

Organizational Policies

5. The nursing staff has sufficient control over scheduling their own work shifts in my hospital.

12. There is a great gap between the administration of this hospital and the daily problems of the nursing service.

18. There are not enough opportunities for advancement of nursing personnel at this hospital.

25. There is ample opportunity for nursing staff to participate in the administrative decision-making process.

33. Administrative decisions at this hospital interfere too much with the patient care.

40. I have all the voice in planning and procedures for this hospital and my unit that I want.

42. The nursing administrators generally consult with the staff on daily problems and procedures.

Autonomy

7. I feel that I am supervised more closely than is necessary.

13. I feel I have sufficient input into the program of care for each of my patients.

17. I have too much responsibility and not enough authority.

20. On my service, my supervisors make all the decisions. I have little direct control over my own work.

26. A great deal of independence is permitted if not required of me.

30. I am sometimes frustrated because all of my activities seem programmed for me.

31. I am sometimes required to do things on my job that are against my better professional nursing judgement.

43. I have the freedom in my work to make important decisions as I see fit, and can count on my supervisor to back me up.

APPENDIX C

PERMISSION FROM STAMPS AND PUBLISHER

I hereby grant permission to utilize the Stamps-Piedmonte Index of Work Satisfaction in the research described, with the understanding that 1) Health Administration Press will give permission for this copyrighted scale to be used in this research project and 2) appropriate acknowledgement be made to the authors of the scale.

Paula Stamps

Paula L. Stamps, Ph.D.
Professor

March 20 1990
Date

Health Administration Press

100

1021 East Huron
Ann Arbor, Michigan
48104

313/764-1380
Fax 313/763-1105

April 13, 1990

Teresa G. Chaney, Capt, USAF NC
5662 Ellis Road
Orchard Park, NY 14127-2224

Dear Ms. Chaney:

Thank you for writing for permission to use the Index of Work Satisfaction in your graduate research. Health Administration Press grants you permission to make the copies of the Index you need, provided that the following credit line is included on the first page of all copies:

> Used with permission from Nurses and Work Satisfaction: An Index for Measurement by Paula L. Stamps and Eugene B. Piedmonte (Ann Arbor, MI: Health Administration Press, 1986).

Permission is granted for one-time use only.

Permission does not extend to publication of material from the book. For example, if you should write an article and it is accepted for publication, you would need to write again for permission if you wanted to include a copy of the Index in your article.

We wish you a successful research project.

Sincerely,

Tracy Flynn
Production Assistant

APPENDIX D

ORGANIZATIONAL COMMITMENT QUESTIONNAIRE BY MOWDAY

Organizational Commitment Questionnaire

Instructions

Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working (company name) please indicate the degree of your agreement or disagreement with each statement by checking one of the seven alternatives below each statement.

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.

2. I talk up this organization to my friends as a great organization to work for.

3. I feel very little loyalty to this organization. (R)

4. I would accept almost any type of job assignment in order to keep working for this organization.

5. I find that my values and the organization's values are very similar.

6. I am proud to tell others that I am part of this organization.

7. I could just as well be working for a different organization as long as the type of work was similar. (R)

8. This organization really inspires the very best in me in the way of performance.

9. It would take very little change in my present circumstances to cause me to leave this organization. (R)

10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.

11. There's not too much to be gained by sticking with this organization indefinitely.

12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees. (R)

13. I really care about the fate of this organization.

14. For me this is the best of all possible organizations for which to work.

15. Deciding to work for his organization was a definite mistake on my part. (R)

An "R" denotes a negatively phrased and reverse scored item. Responses to each item are measured on a 7-point scale with 1) strongly disagree and 7) strongly agree.

APPENDIX E

AIR FORCE APPROVAL LETTER

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE MILITARY PERSONNEL CENTER
RANDOLPH AIR FORCE BASE TX 78150-6001

REPLY TO
ATTN OF DPMYOS

SUBJECT Request for Survey Control Number

TO 5662 Ellis Road
Orchard Park, New York, 14127-2224
Attn: Capt Chaney, USAF NC

1. Capt Teresa Chaney's USAF Certified Registered Nurse Anesthestists Job Satisfaction and Organizational Commitment survey has been reviewed and approved by this office. We have assigned a Survey Control Number USAF SCN 90-57 which will expire 31 December 1990. This number should be placed in the upper right hand corner of the survey cover.

2. Please direct any questions to Mr Lou Datko at DSN 487-5680.

Charles H. Hamilton

CHARLES H. HAMILTON, GM-13
Chief, Personnel Measurement Division

APPENDIX F

HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL

UNIVERSITY AT BUFFALO
STATE UNIVERSITY OF NEW YORK

School of Nursing
709 Stockton Kimball Tower
Buffalo, New York 14214
(716) 831-2510
Fax (716) 831-2021

April 19, 1990

Ms. Teresa G. Chaney
5662 Ellis Road
Orchard Park, New York 14127-2224

Dear Ms. Chaney:

Your proposal entitled "Job Satisfaction, Organizational Commitment and Intent to Stay Among USAF CRNAs" has been reviewed and approved. We are enclosing a copy of the human subjects clearance form with the required signatures.

Please inform the Human Subjects Review Committee if any eventuality should arise with your research which raises additional issues with respect to risks to the subjects and/or confidentiality of the data.

Sincerely,

Gail P. Brown, RN, Ph.D.
Chairperson
Human Subjects Review Committee

GPB:fmg
Enc.
cc-Brenda P. Haughey

STATE UNIVERSITY OF NEW YORK AT BUFFALO

INVESTIGATION INVOLVING HUMAN SUBJECTS—CERTIFICATION OF EXEMPTION

Project Director/Faculty Sponsor Brenda P. Haughey, PhD *Department* Nursing

Principal Investigator(s) Teresa G. Chaney

Project Title Job Satisfaction, Organizational Commitment and Intent to Stay Among USAF CRNAs

Source of Support: Intra-University/Institutional Research ☐ * Sponsored Research ☐ ** Proposal No. _____

New ☐ Revision ☐ Renewal ☐ Continuation ☐

CERTIFICATION OF EXEMPTION FROM APPROVAL BY HUMAN SUBJECTS REVIEW BOARD (Check and initial all applicable conditions, sign below and provide brief substantiating description of protocol on reverse side.)

I certify that the project identified above, which involves the use of human subjects, is exempt from review and approval because it meets the criteria(ion) specified below: ***

_____ P.D. initials ☐ (1) The research will be conducted in established or commonly established educational settings, involving normal education practices.
For example: (a) Research on regular and special educational instructional strategies;
(b) Research on effectiveness of instructional techniques, curricula or classroom management techniques.

_____ P.D. initials ☐ (2) The research involves use of education tests (☐ cognitive, ☐ diagnostic, ☐ aptitude, ☐ achievement), and the subject cannot be identified directly or through identifiers with the information.

TGC P.D. initials
☐ ☒ (3) The research involves survey or interview procedures, in which:
(i) Subjects cannot be identified directly or through identifiers with the information;
☒ (ii) Subjects responses, if known, will not place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability;
☒ (iii) The research does not deal with sensitive aspects of subject's own behavior (illegal conduct, drug use, sexual behavior or alcohol use);
☐ (iv) The research involves survey or interview procedures with elected or appointed public officials, or candidates for public office.

_____ P.D. initials
☐ ☐ (4) The research involves the observation of public behavior, in which:
(i) The subjects cannot be identified directly or through identifiers;
(ii) The observations recorded about an individual could not put the subject at risk of criminal or civil liability or be damaging to the subjects financial standing or employability;
☐ (iii) The research does not deal with sensitive aspects of the subject's behavior (illegal conduct, drug use, sexual behavior or use of alcohol).

_____ P.D. initials
☐ ☐ (5) The research involves collection or study of existing data, documents, records, pathological specimens or diagnostic specimens, or which:
(i) The sources are publicly available; or
(ii) The information is recorded such that the subject cannot be identified directly or indirectly through identifiers.

I further certify that the project will not be changed to increase the risk or exceed the exempt condition(s) without filing an additional certification or application for approval by the Human Subjects Review Board.

Brenda P Haughey 4/17/90
Signature: Project Director/Faculty Sponsor *Date*

Teresa G Chaney 4/17/90
Signature: Principal Investigator(s) *Date*

(Optional Approval) Gail F. Brown 4-17-90
Signature: Board Chairman/Authorized Reviewer *Date*

*The original Certification of Exemption is to be sent to the Chairman of the cognizant Human Subjects Review Board with a copy of the protocol.

**The original Certification of Exemption is to be forwarded to the Office of Research Administration with copies of the proposal routed for review and approval. This project may be subject to review and confirmation of its exempt nature by an authorized Human Subjects Review Board and/or the sponsoring agency.

***If the Project Director has any questions about the Exemption status of this project, he is encouraged to seek confirmation and optional approval of the appropriate Human Subjects Review Board.

APPENDIX G

LETTER OF CONSENT

14 August 1990

Captain CRNA
USAF Hospital/Anesthesia Dept.
Anywhere AFB, USA 00203-5300

Nearly everyone informed about health care issues in the military is aware of the shortage facing the armed services of Certified Registered Nurse Anesthetists (CRNAs). A May, 1989 survey of senior military CRNAs by the American Association of Nurse Anesthetists (AANA) projected a potential loss of up to 60% of CRNAs currently on active duty with the military over the next two years. As CRNAs are a work force that provides over 75% of all anesthetics administered in the military setting, the impact of this departure on the military health care system cannot be overstated.

I am an Air Force officer completing an Air Force Institute of Technology (AFIT) sponsored graduate program at the State University of New York (SUNY) at Buffalo in anesthesia. As part of the requirements for completing my Masters degree, I am conducting a research study designed to evaluate job satisfaction and career plans of Air Force CRNAs. This study will provide a data base the Air Force Nurse Corps can use to analyze the problem of turnover and develop recruitment and retention strategies.

As an Air Force nurse anesthetist your attitudes and opinions about job satisfaction and future career plans can impact the Air Force's response to the problem of CRNA attrition. Because Air Force CRNAs are a small group, it is important that each questionnaire be completed and returned.

You may be assured of complete confidentiality. Responses will be reported as grouped data and will in no way be connected to any individual or location. The questionnaire has an identification number for mailing purposes only. This is so that your name may be checked off the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

Participation in the study is entirely voluntary and will have no effect on your status in the Air Force. If you want to participate in the study, please take approximately 20 minutes to complete the questionnaire and return it in the stamped, addressed envelope provided. Your completion and return of the questionnaire will be viewed as your consent and voluntary participation. If, after completing and returning the questionnaire, you wish to withdraw please contact me at the number below.

The results of this research will be made available to the Air Force, the AANA, and the Health Sciences Library, SUNY at Buffalo. You may receive a summary of results by writing "copy of results requested" on the back of the return envelope and printing your name and address below it. Please do not put this information on the questionnaire itself.

I would be most happy to answer any questions you might have. The telephone number is (716) 662-0691. Thank you for your assistance.

Sincerely,

TERESA G. CHANEY, Capt, USAF NC

APPENDIX H

FIRST FOLLOW-UP LETTER (SECOND MAILING)

Follow-up One Week After Original Mailing

17 July 1990

Captain CRNA
Anesthesia Department
Anywhere AFB, USA 00203

Last week a questionnaire seeking your opinions about job satisfaction and career plans as an Air Force CRNA was mailed to you. If you have completed and returned it please accept my sincere thanks. If not, please do so today. Because the number of Air Force CRNAs is small, it is important that your opinions also be included in the study if the results are to accurately represent the attitudes of Air Force nurse anesthetists.

If by some chance you did not receive the questionnaire, or it was misplaced, please call me collect (716-662-0691) and I will get another one in the mail to you immediately.

Sincerely,

TERESA G. CHANEY, Capt, USAF NC

APPENDIX I

SECOND FOLLOW-UP LETTER (THIRD MAILING)

Second Follow-up Letter

31 July 1990

Captain CRNA
Anesthesia Department
Anywhere AFB, USA 00203

About three weeks ago I wrote to you seeking your opinions on job satisfactions and career plans as an Air Force CRNA. As of today I have not yet received your completed questionnaire.

This study has been undertaken in order to clearly communicate attitudes and opinions of Air Force CRNAs believing this will impact Air Force response to CRNA attrition. As the number of Air Force CRNAs is fairly small, it is important that each person return their questionnaire in order to fairly represent the attitudes of everyone.

A number of people have asked to receive a summary of the results which should be available late September. You may receive a summary by writing "copy of results requested" on the back of the return envelope, and printing your name and address below it. Please do not put this information on the questionnaire itself.

In the event your questionnaire had been misplaced, a replacement is enclosed. If you have any questions, please call me collect at 716-662-0691.

Your cooperation is greatly appreciated.

Cordially,

TERESA G. CHANEY, Capt, USAF NC

APPENDIX J

ADDITIONAL SOURCES OF JOB SATISFACTION

APPENDIX TABLE J

Appendix Table J. Sources of Job Satisfaction Among Respondents in USAF CRNA Job Satisfaction Survey*
(N = 154)

Sources of Job Satisfaction	Number	Percent
Interaction		
Patients in the Air Force	9	5.8
Anesthesia care appreciated	1	0.6
Organizational Benefits		
Malpractice coverage	4	2.6
Job stability and security	3	1.9
Incentive Specialty Pay	2	1.3
Medical benefits	1	0.6
Task Requirements		
Teaching opportunities	5	3.2
Opportunity to serve country	5	3.2
Work not just to increase profits of anesthesia or surgical group	3	1.9
OB call	1	0.6
Decreased contact with Nursing Administration	1	0.6
Others		
Work environment	4	2.6
Job satisfaction	3	1.9
Free time	1	0.6
Separating from Air Force	1	0.6

* Additional sources of satisfaction identified by survey respondents 10 times or more are located in Table 14, in Chapter IV.

APPENDIX K

ADDITIONAL SOURCES OF DISSATISFACTION

APPENDIX TABLES K-1, K-2

Appendix Table K-2. Sources of Job Dissatisfaction of Respondents in USAF CRNA Job Satisfaction Survey*
(N = 154)

Sources of Dissatisfaction	Number	Percent
Professional Status		
Nonmembers of Nursing or Professional Services with no one to stand up for us	6	3.7
Lack of understanding/ knowledge from Nurse Corps regarding activities and responsibilities	3	1.9
Misunderstanding by other health professionals about what we do	2	1.3
3rd class citizen as anesthetist	2	1.3
Poorly defined roles	1	0.6
Promotional Opportunities		
Promotions not performance based	6	3.7
Poor promotions because in Nurse Corps	2	1.3
No career broadening opportunities	2	1.3
Top 10-20% selected for anesthesia school and then become unpromotable	1	0.6
Pay		
Large disparity between Federally contracted CRNAs and AF CRNAs	2	1.3
Dwindling benefits with little incentive to remain in the Air Force	3	1.9
Autonomy		
Having nonanesthesia personnel evaluate and attempt to direct anesthesia care	1	0.6

*Additional sources of job dissatisfaction identified by survey respondents are listed in Appendix Table K-1 and in Table 15, located in Chapter IV.

Appendix Table K-1 Sources of Job Dissatisfaction of Respondents in USAF CRNA Job Satisfaction Survey*
(N = 154)

Sources of Job Dissatisfaction	Number	Percent
Task Requirements		
Lack of clerical support	9	5.8
Lack of technical support	9	5.8
Mobility/ Exercises/ Deployment	8	5.2
Lack of recovery room nurses	8	5.2
MDAs not sharing first call	3	1.9
Workhorse of MDAs at larger MTFs	2	1.3
Not enough clinical experiences at small facilities	2	1.3
Unable to take leave	1	0.6
Organizational Policies		
Family disruptions from frequent PCSs	8	5.2
Lack of standardized policies	8	5.2
Poor leadership	6	3.7
Push for numbers without regard for safety	6	3.7
Inadequate equipment and supplies	3	1.9
Poor base housing/ limited family services	2	1.3
Inert, bureaucratic system	2	1.3
Micro-management of MSN program	2	1.3
Poor orientation to military	2	1.3
Assigning more surgeons to a facility than the OR suite and staffing can accommodate	2	1.3
Frequent moves hinder spouse career	1	0.6
Nurse Corps unable/ unwilling to implement effective solutions CRNA problems	1	0.6
Interactions		
Some working relationships	7	4.5
Conflict/ harassment from MDAs	5	3.2
Inconsistentcies in MDA direction	3	1.9

*Additional sources of job dissatisfaction identified by survey respondents are listed in Appendix Table K-2 which follows and in Table 15, located in Chapter IV.

APPENDIX L

RECOMMENDATIONS FOR CHANGE INDICATED BY STUDY SUBJECTS

APPENDIX TABLES L-1 THROUGH L-4

Appendix Table L-1. Recommendations for Changes by Respondents in USAF CRNA Job Satisfaction Survey*
(N = 154)

Recommendations	Number	Percent
Autonomy		
CRNAs should be allowed to exercise professional judgement and consult/request assistance from physician when necessary. Eliminate professional constraints when no MDA available.	17	11.0
MDAs counterproductive to CRNA utilization--as long as internist consulted with high risk patients--no clear need for MDAs	6	3.9
Great need for increased rank at smaller facilities to deal with tough decisions without MDAs	3	1.9
Policies regarding MDA supervision should be consistent during normal duty hours and after hours.	3	1.9
Clarify CRNA role at all MTF; decrease variation from facility to facility.	3	1.9
Every effort should be made to support CRNA independent practice and increase skills with ASA 3+ in the event of major conflict (i.e., war).	3	1.9
Senior anesthetists should be able to grant compensatory time off as they see fit.	1	0.6
Pay		
Institute specialty pay that approaches civilian pay.	23	14.9
Maintain and increase bus	19	12.3
Increase bonus to $10-15,000	16	10.4
Professional bonus should be similar to physician	13	8.4
Increase bonus based on experience	8	5.2
Increase bonus to $15-20,000 for retention	6	3.9
Increase bonus to $40,000 and go up with rank	4	2.6
Change retention bonus to permanent bonus	3	1.9
Use money given to contract CRNAs and give to active duty CRNAs.	3	1.9
Increase retention bonus and contract lengths	1	0.6

* Additional recommendations follow in Appendix Tables L-2 through L-4.

Appendix Table L-2. Recommendations for Changes by Respondents in USAF CRNA Job Satisfaction Survey*
(N = 154)

Recommendations	Number	Percent
Promotional Opportunities		
Promotions should be fully qualified as they are in the Medical and Dental Corps	27	17.5
Nurse providers and practioners should be considered separately from NC	18	11.7
Promote to O-4** fully qualified	14	9.1
Promotions should be performance based	9	5.8
CRNAs should expect to make O-5** in 20 years	8	5.2
CRNAs should be considered as having Masters degrees in light of 2 yrs post-grad work	7	4.5
Promotions should at least be the same as the rest of the Nurse Corps	5	3.2
More O-5/O-6** slots need to be opened	5	3.2
CRNAs with 2 years experience should be O-4**	3	1.9
O-5** should be competitive-but not less than 40%	2	1.3
CRNAs need to be given opportunities for PME/ Flight school so they can compete	2	1.3
Senior anesthetists at MTFs with 3 or more CRNAs should be at least O-5**	1	0.6
AF needs to recognize non-nursing degrees	1	0.6
Once become CRNA should promote to O-4**	1	0.6

* Additional recommendations for change listed in Appendix Tables L-1, L-3 and L-4.

** Federal rank/grade levels-- O-3 corresponds to captain, O-4 to major, O-5 to LtColonel, O-6 to colonel.

Appendix Table L-3. Recommendations for Changes by Respondents in USAF CRNA Job Satisfaction Survey*
(N = 154)

Recommendations	Number	Percent
Organizational Policies		
CRNAs need to be more involved in policy making at all levels.	11	7.1
Increase educational funding	5	3.2
One department--either SGHS** or SGHN**--needs to control CRNAs	3	1.9
Standardize policies/decrease facility to facility variation	3	1.9
Stop restrictions on moonlighting	3	1.9
CRNAs at small facilities need to spend 2 weeks/year at a regional hospital or medical center to renew their skills	3	1.9
Moonlighting should be encouraged at small hospitals to keep skills current	2	1.3
We need a powerful representative for CRNAs to intercede and solve problems	2	1.3
CRNAs should be evaluated by CRNAs or anesthesia personnel	1	0.6
Allow more input into assignments	1	0.6
Senior CRNA should be in charge of Anesthesia Department if ranks MDA or no MDA present	1	0.6
Anesthesia services should not be combined surgical services	1	0.6
Consolidate and close small hospitals	1	0.6
Hire more civilian CRNAs--we need help	1	0.6
Interactions		
Promote CRNA unity in AF--organization and encourage meetings and attendance.	4	2.6
Cut down push for involvement in AF "social activities"	2	1.3

* Additional recommendation are listed in Appendix Tables L-1, L-2, and L-4.

** SGHS/SGHN are acronyms for surgical and nursing administration.

Appendix Table L-4. Recommendations for Changes by Respondents in USAF CRNA Job Satisfaction Survey*
(N = 154)

Recommendations	Number	Percent
Task Requirements		
Obtain ancillary personnel to maintain equipment/supplies/cleaning	16	10.4
Decrease extra duties	13	8.4
Standardize/streamline policies/QA	6	3.9
Call time should be shared by all anesthesia providers	4	2.6
Clerical/administrative support	3	1.9
Recovery room support during normal hours	2	1.3
Recognize that call-time is on-duty time	2	1.3
Administration time is needed	2	1.3
Professional Status		
Increase awareness and recognition of CRNA job responsibilities	10	6.5
AF needs to recognize CRNAs as professional staff and accord privileges as such--administration time/professional education	9	5.8
We need someone to protect our interests	6	3.9
Others		
Perhaps CRNAs should not be with Nurse Corps	5	3.2
A senior CRNA troubleshooter to visit MTFs to help solve CRNA problems	3	1.9
Need real input into assignments--fear of PCS needs to be removed	3	1.9
AF funded and encouraged research by CRNAs	2	1.3

* Additional recommendations are listed in Appendix Tables L-1 through L-3.